HEI

CATALYST FOR A BETTER HAWAIʻI

2023
Annual Report to Shareholders

HEI

CATALYST FOR A BETTER HAWAIʻI

Hawaiian* Electric

Provides electricity and related services for 95% of Hawaiʻi's population and operates 3 utilities and 5 separate island grids

AMERICAN Savings Bank

One of Hawaiʻi's largest financial institutions providing an array of banking and financial services across 5 islands

PACIFIC CURRENT

Invests in sustainable infrastructure as part of HEI's strategy to be a catalyst for a better Hawaiʻi

Financial Highlights

YEARS ENDED DECEMBER 31 (in millions, except per share amounts)	2023	2022	2021
Operating income	$353	$381	$386
Net income (loss) for common stock by segment			
Electric utility	194	189	178
Bank	53	80	101
Other	(48)	(28)	(33)
Net income for common stock	199	241	246
Core[1, 2] net income for common stock	224	235	246
Diluted earnings per common share	1.81	2.20	2.25
Core[1, 2] diluted earnings per common share	2.04	2.14	2.25
Return on average common equity	8.8%	10.5%	10.4%
Core[1, 2] return on average common equity	9.9%	10.2%	10.4%
Dividends per common share	1.08	1.40	1.36
Dividend yield[3]	–	3.3%	3.3%
Common shares (in millions)			
December 31	110.2	109.5	109.3
Weighted-average – basic	109.7	109.4	109.3
Weighted-average – diluted	110.0	109.8	109.6

[1] See Appendix B for the reconciliation of GAAP to non-GAAP measures.

[2] 2023 core results exclude $14 million of net Maui windstorm and wildfire-related expenses, and a non-recurring loss on the sale of securities of $11 million recorded at the bank. 2022 core results exclude a gain on sale of an equity method investment of $6 million recorded at the other segment.

[3] At December 31.

* Hawaiian Electric Company, Inc. is a subsidiary of HEI. As a holding company, HEI does not sell products or services and therefore is not regulated by the state Public Utilities Commission.

FELLOW SHAREHOLDERS

Aloha mai kākou,

The HEI family of companies is guided by a common purpose: To create a better Hawai‘i that’s thriving economically, environmentally, culturally and socially, where everyone in our community enjoys an abundance of resources and opportunities that enable them to achieve their hopes and dreams.

The year 2023 was among the most difficult in our state’s history. Lives were lost in the August wildfires on Maui. Many, including some of our employees, lost homes and businesses, and a place of rich cultural history was destroyed. In the face of this devastation, HEI and our operating companies remained focused on our common purpose, working side by side with many others to support our communities in the recovery effort.

Acting immediately, HEI and our family of companies collaborated with community leaders, businesses, nonprofits and county, state and federal government agencies. Crews from our utility, **Hawaiian Electric**, worked around the clock to restore power to customers and are now rebuilding the grid as an interim measure to provide power while community-driven plans for the future of Lahaina are being developed. **American Savings Bank** quickly supported impacted customers by waiving Maui ATM fees and offering 90-day loan forbearance and deferment, as well as an emergency personal line of credit. ASB continues to be well positioned with strong capital, excellent credit quality, lending capacity and ample liquidity to support our community as families heal and rebuild.

The economic and societal risks brought about by global climate change are especially acute in island communities. It's clear that addressing these risks, and supporting Maui's recovery, will take a collective effort from the whole of society. We're seeing this view reflected in the governor's One ʻOhana initiative, which lays out a holistic framework to support Maui's recovery, protect our communities against future extreme weather events, and ensure that as a state, we can attract the capital needed to invest in wildfire mitigation and resilience and to keep our communities safe. The whole of society approach is also reflected in our state's 2024 legislative session, in which legislation is being considered to strengthen the long-term resilience of our communities, utilities and natural environment.

We remain confident about the future, in part, because of the commitment demonstrated by many in Hawaiʻi to achieve a more resilient and sustainable future. While recovery from the wildfires is an immediate priority, we also remain committed to helping lead efforts to transition Hawaiʻi away from fossil fuels and toward a sustainable economy. **Hawaiian Electric** anchors these efforts as it works to directly decarbonize Hawaiʻi's power and ground transportation sectors while enhancing the resilience of our community and ensuring an equitable energy transition. **American Savings Bank** is advancing economic development, affordability and environmentally sustainable operations. The collective impact of our businesses is amplified by the talent, innovation and commitment of employees working together across our family of companies and with partners throughout Hawaiʻi.

2023 Business Performance

Our core operations have continued to perform in line with expectations as we work alongside others in the Maui reconstruction efforts. On a consolidated basis, 2023 net income was $199.2 million, and earnings per share was $1.81. Excluding Maui wildfire-related expenses and the impacts of a strategic balance sheet repositioning at ASB, core net income and EPS were $224 million and $2.04, respectively, down 5% compared to last year.

Hawaiian Electric

In 2023, the utility made important progress on its Stage 3 request for proposals (RFP), its largest renewables procurement ever. Projects procured under the Stage 3 RFP will further reduce Hawai‘i's dependence on imported oil for power generation. At the end of the year, contract negotiations were in process with the developers of 16 renewable energy projects across our islands. These projects are expected to produce approximately 517 megawatts of variable generation, 694 megawatts of firm renewable generation and 2.1 gigawatt hours of storage.

The utility's own 253-megawatt Waiau repowering project on O‘ahu will be built at the site of Hawaiian Electric's existing 85-year-old facility at Pearl Harbor, and could potentially use renewable gas or hydrogen when they become commercially available.

We are pursuing multiple federal funding sources to strengthen our system while limiting costs to customers, including nearly $450 million of grants for grid resilience, modernization and innovation for investments to increase defenses against natural hazards, including wildfires.

In December, the utility connected one of the world's most advanced battery systems to the O‘ahu grid. The Kapolei Energy Storage facility provides 185 megawatts of total power capacity and 565 megawatt hours of energy. This is the first time a stand-alone battery has provided grid-forming services at this scale. We're pleased with the utility's continued progress toward a clean energy-powered grid and are encouraged by the constructive engagement of regulators and the federal government in Hawai‘i's clean energy future.

And finally, the utility and its union, IBEW 1260, extended their partnership, reaching agreement on a new three-year contract. The contract provides stability as highly skilled Hawaiian Electric employees continue performing critical work to strengthen and modernize the generation system and the grid.

American Savings Bank

Our bank's business proved resilient through the economic impacts of the Maui wildfires and the challenging interest rate environment in 2023. ASB's loyal and long-tenured deposit base remained stable. As of December 31, approximately 86% of ASB's deposits were FDIC insured or fully collateralized.

Asset quality remained strong, and the Hawai‘i market continues to be characterized by strong credit quality and low delinquency rates in comparison to the mainland. ASB's capital remains strong with ample liquidity and lending capacity.

Many Hands Working Together

When facing great challenges, the HEI family of companies relies on our common purpose to guide our actions and uphold our responsibilities to future generations.

As we reflect upon 2023, we recognize the power of what in the Hawaiian language we refer to as laulima — many hands working together. In practical terms, we demonstrate laulima by working alongside other businesses, nonprofits, community leaders and government agencies to serve the long-term interests of all our stakeholders.

On behalf of our employees, our leadership and our Board, I wish to thank you, our shareholders, for your continued confidence and support. Together with you and the communities we serve, we continue working toward a resilient and sustainable future rooted in aloha for one another, respect for our lands and integrity and humility in our leadership.

Me ke aloha pumehana — with warm regards,

Scott W.H. Seu
HEI President and Chief Executive Officer

Hawaiian Electric Industries, Inc.

2023 Annual Report to Shareholders

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D. C. 20549
FORM 10-K

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2023
OR
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Exact Name of Registrant as Specified in Its Charter	Commission File Number	I.R.S. Employer Identification No.
Hawaiian Electric Industries, Inc.	1-8503	99-0208097
Hawaiian Electric Company, Inc.	1-4955	99-0040500

State of Hawaii
(State or other jurisdiction of incorporation)

1001 Bishop Street, Suite 2900, Honolulu, Hawaii 96813 - Hawaiian Electric Industries, Inc. (HEI)
1099 Alakea Street, Suite 2200, Honolulu, Hawaii 96813 - Hawaiian Electric Company, Inc. (Hawaiian Electric)
(Address of principal executive offices and zip code)

Registrant's telephone number, including area code:
(808) 543-5662 - HEI
(808) 543-7771 - Hawaiian Electric

Not applicable
(Former name or former address, if changed since last report.)

Securities registered pursuant to Section 12(b) of the Act:

Registrant	Title of each class	Trading Symbol	Name of each exchange on which registered
Hawaiian Electric Industries, Inc.	Common Stock, Without Par Value	HE	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

Registrant	Title of each class
Hawaiian Electric Industries, Inc.	None
Hawaiian Electric Company, Inc.	Cumulative Preferred Stock

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Hawaiian Electric Industries, Inc. Yes ☒ No ☐ Hawaiian Electric Company, Inc. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Hawaiian Electric Industries, Inc. Yes ☐ No ☒ Hawaiian Electric Company, Inc. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Hawaiian Electric Industries, Inc. Yes ☒ No ☐ Hawaiian Electric Company, Inc. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Hawaiian Electric Industries, Inc.	Yes ☒	No ☐	Hawaiian Electric Company, Inc.	Yes ☒	No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Hawaiian Electric Industries, Inc.:				Hawaiian Electric Company, Inc.:			
Large accelerated filer	☒	Smaller reporting company	☐	Large accelerated filer	☐	Smaller reporting company	☐
Accelerated filer	☐	Emerging growth company	☐	Accelerated filer	☐	Emerging growth company	☐
Non-accelerated filer	☐			Non-accelerated filer	☒		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Hawaiian Electric Industries, Inc.	Yes ☐	No ☐	Hawaiian Electric Company, Inc.	Yes ☐	No ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

Hawaiian Electric Industries, Inc.	☒	Hawaiian Electric Company, Inc.	☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Hawaiian Electric Industries, Inc.	☐	Hawaiian Electric Company, Inc.	☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Hawaiian Electric Industries, Inc.	☐	Hawaiian Electric Company, Inc.	☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Hawaiian Electric Industries, Inc.	Yes ☐	No ☒	Hawaiian Electric Company, Inc.	Yes ☐	No ☒

	Aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrants as of	**Number of shares of common stock outstanding of the registrants as of**	
	June 30, 2023	**June 30, 2023**	**February 15, 2024**
Hawaiian Electric Industries, Inc. (Without Par Value)	$3,967,939,884	109,611,599	110,151,798
Hawaiian Electric Company, Inc. ($6-2/3 Par Value)	None	17,854,278	17,854,278

DOCUMENTS INCORPORATED BY REFERENCE

Hawaiian Electric's Exhibit 99.1, consisting of:
- Hawaiian Electric's Directors, Executive Officers and Corporate Governance—Part III
- Hawaiian Electric's Executive Compensation—Part III
- Hawaiian Electric's Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters—Part III
- Hawaiian Electric's Certain Relationships and Related Transactions, and Director Independence—Part III
- Hawaiian Electric's Principal Accounting Fees and Services—Part III

Selected sections of Proxy Statement of HEI for the 2024 Annual Meeting of Shareholders to be filed-Part III

This combined Form 10-K represents separate filings by Hawaiian Electric Industries, Inc. and Hawaiian Electric Company, Inc. Information contained herein relating to any individual registrant is filed by each registrant on its own behalf. Hawaiian Electric makes no representations as to any information not relating to it or its subsidiaries.

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GLOSSARY OF TERMS

Defined below are certain terms used in this report:

Terms	Definitions
ABOs	Accumulated benefit obligations
ACL	Allowance for credit losses as determined under the credit loss standard (ASU No. 2016-13, adopted by the Company on January 1, 2020), which requires the measurement of lifetime expected credit losses for financial assets held at the reporting date (based on historical experience, current conditions and reasonable and supportable forecasts)
AES Hawaii	AES Hawaii, Inc.
AFS	Available-for-sale
AFUDC	Allowance for funds used during construction
AOCI	Accumulated other comprehensive income (loss)
APBO	Accumulated postretirement benefit obligation
ARA	Annual revenue adjustment
AROs	Asset retirement obligations
ASB	American Savings Bank, F.S.B., a wholly-owned subsidiary of ASB Hawaii Inc.
ASB Hawaii	ASB Hawaii, Inc., a wholly-owned subsidiary of Hawaiian Electric Industries, Inc. and the parent company of American Savings Bank, F.S.B.
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
BESS	Battery Energy Storage System
Btu	British thermal unit
CBRE	Community-based renewable energy
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
Company	When used in Hawaiian Electric Industries, Inc. sections and in the Notes to Consolidated Financial Statements, "Company" refers to Hawaiian Electric Industries, Inc. and its direct and indirect subsidiaries, including, without limitation, Hawaiian Electric Company, Inc. and its subsidiaries (listed under Hawaiian Electric); ASB Hawaii, Inc. and its subsidiary, American Savings Bank, F.S.B.; and Pacific Current, LLC and its subsidiaries (listed under Pacific Current). When used in Hawaiian Electric Company, Inc. sections, "Company" refers to Hawaiian Electric Company, Inc. and its direct subsidiaries.
Consolidated Financial Statements	HEI's or Hawaiian Electric's Consolidated Financial Statements, including notes, in Item 8 of this Form 10-K
Consumer Advocate	Division of Consumer Advocacy, Department of Commerce and Consumer Affairs of the State of Hawaii
CSSM	Collective Shared Savings Mechanism
D&O	Decision and order from the PUC
DBF	State of Hawaii Department of Budget and Finance
DER	Distributed energy resources
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010
DRIP	HEI Dividend Reinvestment and Stock Purchase Plan
ECRC	Energy cost recovery clause
EIP	2010 Equity and Incentive Plan, as amended
EPA	Environmental Protection Agency - federal
EPRM	Exceptional Project Recovery Mechanism
EPS	Earnings per share
ERISA	Employee Retirement Income Security Act of 1974, as amended
ERL	Environmental Response Law of the State of Hawaii
ERP/EAM	Enterprise Resource Planning/Enterprise Asset Management
ESM	Earnings Sharing Mechanism
Exchange Act	Securities Exchange Act of 1934
FASB	Financial Accounting Standards Board
FDIC	Federal Deposit Insurance Corporation
federal	U.S. Government
FERC	Federal Energy Regulatory Commission
FHLB	Federal Home Loan Bank

GLOSSARY OF TERMS *(continued)*

Terms	Definitions
FICO	Fair Isaac Corporation
Fitch	Fitch Ratings, Inc.
FRB	Federal Reserve Board
GAAP	Accounting principles generally accepted in the United States of America
GCOD	Guaranteed commercial operation date
GHG	Greenhouse gas
Gramm Act	Gramm-Leach-Bliley Act of 1999
GSPA	Grid Services Purchase Agreement
GWh	Gigawatt-hour/s (as applicable)
Hamakua Energy	Hamakua Energy, LLC, an indirect subsidiary of Pacific Current
Hawaii Electric Light	Hawaii Electric Light Company, Inc., an electric utility subsidiary of Hawaiian Electric Company, Inc.
Hawaiian Electric	Hawaiian Electric Company, Inc., an electric utility subsidiary of Hawaiian Electric Industries, Inc. and parent company of Hawaii Electric Light Company, Inc., Maui Electric Company, Limited and Renewable Hawaii, Inc.
Hawaiian Electric's MD&A	Hawaiian Electric Company, Inc.'s Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K
HEI	Hawaiian Electric Industries, Inc., direct parent company of Hawaiian Electric Company, Inc., ASB Hawaii, Inc. and Pacific Current, LLC.
HEI's 2024 Proxy Statement	Selected sections of Proxy Statement for the 2024 Annual Meeting of Shareholders of Hawaiian Electric Industries, Inc. to be filed after the date of this Form 10-K and not later than 120 days after December 31, 2023, which are incorporated in this Form 10-K by reference
HEI's MD&A	Hawaiian Electric Industries, Inc.'s Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K
HEIRSP	Hawaiian Electric Industries Retirement Savings Plan
HELOC	Home equity line of credit
HPOWER	City and County of Honolulu with respect to a power purchase agreement for a refuse-fired plant
HSFO	High sulfur fuel oil
HTM	Held-to-maturity
IIJA	Infrastructure Investment and Jobs Act
IPP	Independent power producer
Ka'ie'ie Waho	Ka'ie'ie Waho Company, LLC, a subsidiary of Pacific Current
Kalaeloa	Kalaeloa Partners, L.P.
kW	Kilowatt/s (as applicable)
kWh	Kilowatt-hour/s (as applicable)
LIBOR	London Inter-Bank Offered Rate
LMI	Low-to-moderate income
LSFO	Low sulfur fuel oil
LTIP	Long-term incentive plan
Mahipapa	Mahipapa, LLC, a subsidiary of Pacific Current
Maui Electric	Maui Electric Company, Limited, an electric utility subsidiary of Hawaiian Electric Company, Inc.
Maui windstorm and wildfires	The fires in the West Maui (Lahaina) and Upcountry Maui areas that caused fatalities and widespread property damage in Lahaina on August 8, 2023
Mauo	Mauo, LLC, a subsidiary of Pacific Current
MBtu	Million British thermal unit
MD&A	Management's Discussion and Analysis of Financial Condition and Results of Operations
Moody's	Moody's Investors Service's
MPIR	Major Project Interim Recovery
MRP	Multi-year rate period
MSR	Mortgage servicing right
MW	Megawatt/s (as applicable)
MWh	Megawatt-hour/s (as applicable)
NA	Not applicable
NII	Net interest income

GLOSSARY OF TERMS *(continued)*

Terms	Definitions
NPBC	Net periodic benefits costs
NPPC	Net periodic pension costs
O&M	Other operation and maintenance
OCC	Office of the Comptroller of the Currency
OPEB	Postretirement benefits other than pensions
OTS	Office of Thrift Supervision, Department of Treasury
Pacific Current	Pacific Current, LLC, a wholly owned subsidiary of HEI and parent company of Hamakua Holdings, LLC, Mauo, LLC, Alenuihaha Developments, LLC, Ka‘ie‘ie Waho Company, LLC, Ka‘aipua‘a, LLC, Upena, LLC and Mahipapa, LLC
PBO	Projected benefit obligation
PBR	Performance-based regulation
PCB	Polychlorinated biphenyls
PGV	Puna Geothermal Venture
PIMs	Performance incentive mechanisms
PPA	Power purchase agreement
PPAC	Purchased power adjustment clause
PUC	Public Utilities Commission of the State of Hawaii
PURPA	Public Utility Regulatory Policies Act of 1978
PV	Photovoltaic
QF	Qualifying Facility under the Public Utility Regulatory Policies Act of 1978
QTL	Qualified Thrift Lender
RAM	Revenue adjustment mechanism
RBA	Revenue balancing account
Registrant	Each of Hawaiian Electric Industries, Inc. and Hawaiian Electric Company, Inc.
RFPs	Request for proposals
RHI	Renewable Hawaii, Inc., a wholly-owned nonregulated subsidiary of Hawaiian Electric Company, Inc.
ROACE	Return on average common equity
RPS	Renewable portfolio standards
S&P	S&P Global Ratings
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SEC	Securities and Exchange Commission
See	Means the referenced material is incorporated by reference (or means refer to the referenced section in this document or the referenced exhibit or other document)
SLHCs	Savings & Loan Holding Companies
SOFR	Secured Overnight Financing Rate
SPRBs	Special Purpose Revenue Bonds
SSM	Shared Savings Mechanism
state	State of Hawaii
Tax Act	2017 Tax Cuts and Jobs Act (H.R. 1, An Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018)
TDR	Troubled debt restructuring
ULSD	Ultra-low sulfur diesel
Utilities	Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc. and Maui Electric Company, Limited
VIE	Variable interest entity

Cautionary Note Regarding Forward-Looking Statements

This report and other presentations made by Hawaiian Electric Industries, Inc. (HEI) and Hawaiian Electric Company, Inc. (Hawaiian Electric) and their subsidiaries contain “forward-looking statements,” which include statements that are predictive in nature, depend upon or refer to future events or conditions and usually include words such as “will,” “expects,” “anticipates,” “intends,” “plans,” “believes,” “predicts,” “estimates” or similar expressions. In addition, any statements concerning future financial performance, ongoing business strategies or prospects or possible future actions are also forward-looking statements. Forward-looking statements are based on current expectations and projections about future events and are subject to risks, uncertainties and the accuracy of assumptions concerning HEI and its subsidiaries (collectively, the Company), the performance of the industries in which they do business and economic, political and market factors, among other things. These forward-looking statements are not guarantees of future performance and actual results and financial condition may differ materially from those indicated in the forward-looking statements.

Risks, uncertainties and other important factors that could cause actual results to differ materially from those described in forward-looking statements and from historical results include, but are not limited to, the following:

- the impact of the Maui windstorm and wildfires including the potential liabilities from the many lawsuits filed against the Company and potential regulatory penalties which may result in significant costs that may be unrecoverable (or not reimbursed on a timely basis) through insurance and/or rates;
- an increase in insurance premiums and the inability to fully recover premiums through rates or the potential inability to obtain wildfire and general liability insurance coverage at reasonable rates, if available at all;
- the uncertainties surrounding the Company’s access to capital and credit markets due to the uncertainties associated with the costs related to the Maui windstorm and wildfires;
- extreme weather events, including windstorms and other natural disasters, particularly those driven or exacerbated by climate change, which could increase the risk of the Utilities’ equipment being damaged, becoming inoperable or contributing to a wildfire;
- the material reduction or extended delay in dividends or other distributions from one or more operating subsidiaries to HEI;
- further downgrades by securities rating agencies in their ratings of the securities of HEI and Hawaiian Electric and their impact on results of financing efforts;
- the risks of suffering losses and incurring liabilities that are uninsured (e.g., damages to the Utilities’ transmission and distribution system and losses from business interruption) or underinsured (e.g., losses not covered as a result of insurance deductibles or other exclusions or exceeding policy limits), and the risks associated with the operation of transmission and distribution assets and power generation facilities, including public and employee safety issues, and assets causing or contributing to wildfires;
- international, national and local economic and political conditions—including the state of the Hawaii tourism, defense and construction industries; the strength or weakness of the Hawaii and continental U.S. real estate markets (including the fair value and/or the actual performance of collateral underlying loans held by ASB, which could result in higher loan loss provisions and write-offs); decisions concerning the extent of the presence of the federal government and military in Hawaii; the implications and potential impacts of future federal government shutdowns, including the impact to our customers’ ability to pay their electric bills and/or bank loans and the impact on the state of Hawaii economy; the implications and potential impacts of U.S. and foreign capital and credit market conditions and federal, state and international responses to those conditions; the potential impacts of global and local developments (including global economic conditions and uncertainties, unrest, terrorist acts, wars, conflicts, political protests, deadly virus epidemic or other crisis); the effects of changes that have or may occur in U.S. policy, such as with respect to immigration and trade; and pandemics;
- the lingering impact of the COVID-19 pandemic, including any recurrence of the COVID-19 pandemic due to new variants and the potential reinstatement of related government orders and restrictions, and the resulting impact on our employees, customers and suppliers;
- the ability to adequately address risks and capitalize on opportunities related to our environmental, social and governance priority areas, which include safety, reliability and resilience, including relating to wildfires and other extreme weather events, decarbonization, economic health and affordability, secure digitalization, diversity, equity and inclusion, employee engagement, and climate-related risks and opportunities;
- citizen activism, including civil unrest, especially in times of severe economic depression and social divisiveness, which could negatively impact customers and employees, impair the ability of the Company and the Utilities to operate and maintain their facilities in an effective and safe manner, and citizen or stakeholder activism that could delay the construction, increase project costs or preclude the completion of third-party or Utility projects that are required to meet electricity demand, resilience and reliability objectives and renewable portfolio standards (RPS) and other climate-related goals;

- the effects of future actions or inaction of the U.S. government or related agencies, including those related to the U.S. debt ceiling or budget funding, monetary policy, trade policy and tariffs, energy and environmental policy, and other policy and regulatory changes advanced or proposed by President Biden and his administration;
- weather, natural disasters (e.g., hurricanes, earthquakes, tsunamis, lightning strikes, lava flows and the increasing effects of climate change, such as more severe storms, flooding, droughts, heat waves, and rising sea levels) and wildfires, including their impact on the resilience and reliability and cost of the Company's and Utilities' operations, collateral underlying ASB loans and the economy;
- the timing, speed and extent of changes in interest rates and the shape of the yield curve, which could result in lower portfolio yields and net interest margin, or higher borrowing costs;
- changes in interest rates and market liquidity, as well as the magnitude of such changes, which may reduce interest margins, impact funding sources, alter valuations and affect the ability to originate and distribute financial products in the primary and secondary markets;
- the continued ability of the Company and the Utilities to access the credit and capital markets (e.g., to obtain commercial paper and other short-term and long-term debt financing, including lines of credit, and, in the case of HEI, to issue common stock) under volatile and challenging market conditions, and the potential higher cost of such financings, if available;
- the risks inherent in changes in the value of the Company's pension and other retirement plan assets and ASB's securities available for sale, and the risks inherent in changes in the value of the Company's pension liabilities, including changes driven by interest rates and mortality improvements;
- changes in laws, regulations (including tax regulations), market conditions, interest rates and other factors that result in changes in assumptions used to calculate retirement benefits costs and funding requirements;
- increasing competition in the banking industry from traditional financial institutions as well as from non-traditional providers of financial services, including financial service subsidiaries of commercial and manufacturing companies (e.g., increased price competition for loans and deposits, or an outflow of deposits to alternative investments or platforms, which may have an adverse impact on ASB's net interest margin and portfolio growth);
- the potential delay by the Public Utilities Commission of the State of Hawaii (PUC) in considering (and potential disapproval of actual or proposed) renewable energy or resilience proposals, among others, and related costs; reliance by the Utilities on outside parties such as the state, independent power producers (IPPs) and developers; supply-chain challenges; and uncertainties surrounding technologies, solar power, wind power, biofuels, environmental assessments required to meet RPS and other climate-related goals; the impacts of implementation of the renewable energy and resilience proposals on future costs of electricity and potential penalties imposed by the PUC for delays in the commercial operations of renewable energy projects;
- the ability of the Utilities to develop, implement and recover the costs of implementing the Utilities' action plans included in their updated Power Supply Improvement Plans, Demand Response Portfolio Plan, Distributed Generation Interconnection Plan, Grid Modernization Plans, and business model changes, which have been and are continuing to be developed and updated in response to the orders issued by the PUC, the PUC's April 2014 statement of its inclinations on the future of Hawaii's electric utilities and the vision, business strategies and regulatory policy changes required to align the Utilities' business model with customer interests and the state's public policy goals, and subsequent orders of the PUC;
- the ability of the Utilities to recover undepreciated cost of fossil fuel generating units, if they are required to be retired before the end of their expected useful life;
- capacity and supply constraints or difficulties, especially if generating units (utility-owned or IPP-owned) fail or measures such as demand-side management, distributed generation, combined heat and power or other firm capacity supply-side resources fall short of achieving their forecasted benefits or are otherwise insufficient to reduce or meet peak demand;
- high and/or volatile fuel prices, which increases working capital requirements and customer bills, or delivery of adequate fuel by suppliers (including as a result of the Russia-Ukraine war and the Israel-Hamas war), which could affect the reliability of utility operations, and the continued availability to the electric utilities of their energy cost recovery clauses (ECRCs);
- the continued availability to the electric utilities or modifications of other cost recovery mechanisms, including the purchased power adjustment clauses (PPACs), annual revenue adjustment (ARA) and pension and postretirement benefits other than pensions (OPEB) tracking mechanisms, and the continued decoupling of revenues from sales to mitigate the effects of declining kilowatt-hour sales;
- the ability of the Utilities to recover increasing or additional costs and earn a reasonable return on capital investments not covered by the ARA, while providing the customer dividend required by performance-based regulation (PBR);
- the impact from the PUC's implementation of PBR for the Utilities pursuant to Act 005, Session Laws 2018, including the potential addition of new performance incentive mechanisms (PIMs), third-party proposals adopted by the PUC in its implementation of PBR, and the implications of not achieving performance incentive goals;
- the impact of fuel price levels and volatility on customer satisfaction and political and regulatory support for the Utilities;

- unfavorable changes in economic conditions, such as sustained inflation, higher interest rates or recession, may negatively impact the ability of the Company's customers to pay their utility bills or loan payments, reduce loan production, and increase operating costs of the Utilities or Bank that cannot be passed on to, or recovered, from customers;
- the risks associated with increasing reliance on renewable energy, including the availability and cost of non-fossil fuel supplies for renewable energy generation and the operational and related cost impacts of adding intermittent sources of renewable energy to the electric grid;
- the growing risk that energy production from renewable generating resources may be curtailed and the interconnection of additional resources will be constrained as more generating resources are added to the Utilities' electric systems and as customers reduce their energy usage;
- the ability of IPPs to deliver the firm capacity anticipated in their power purchase agreements (PPAs);
- the potential that, as IPP contracts near the end of their terms, there may be less economic incentive for the IPPs to make investments in their units to ensure the availability of their units;
- the ability of the Utilities to negotiate, periodically, favorable agreements for significant resources such as fuel supply contracts and collective bargaining agreements and avoid or mitigate labor disputes and work stoppages;
- new technological developments that could affect the operations and prospects of the Utilities and ASB or their competitors such as the commercial development of energy storage and microgrids and banking through alternative channels, including use of digital currencies, which could include a central bank digital currency;
- cybersecurity risks and the potential for cyber incidents, including potential incidents at HEI, its subsidiaries (including at ASB branches and electric utility plants), its third-party service providers, contractors and customers with whom they have shared data (IPPs, distributed energy resources (DER) aggregators and customers enrolled under DER programs) and incidents at data processing centers used, to the extent not prevented by intrusion detection and prevention systems, anti-virus software, firewalls and other general IT controls;
- failure to achieve remaining cost savings commitment related to the management audit committed savings of $33 million over the 2021 to 2025 multi-year rate period (MRP);
- federal, state, county and international governmental and regulatory actions, such as existing, new and changes in laws, rules and regulations applicable to HEI, the Utilities and ASB (including changes in taxation and tax rates, increases in capital requirements, regulatory policy changes, environmental laws and regulations (including resulting compliance costs and risks of fines and penalties and/or liabilities), the regulation of greenhouse gas emissions, governmental fees and assessments (such as Federal Deposit Insurance Corporation assessments), and potential carbon pricing or "cap and trade" legislation that may fundamentally alter costs to produce electricity and accelerate the move to renewable generation);
- developments in laws, regulations and policies governing protections for historic, archaeological and cultural sites, and plant and animal species and habitats, as well as developments in the implementation and enforcement of such laws, regulations and policies;
- discovery of conditions that may be attributable to historical chemical releases, including any necessary investigation and remediation, and any associated enforcement, litigation or regulatory oversight;
- decisions by the PUC in rate cases and other proceedings (including the risks of delays in the timing of decisions, adverse changes in final decisions from interim decisions and the disallowance of project costs as a result of adverse regulatory audit reports or otherwise);
- decisions by the PUC and by other agencies and courts on land use, environmental and other permitting issues (such as required corrective actions, restrictions and penalties that may arise, such as with respect to environmental conditions or RPS);
- potential enforcement actions by the Office of the Comptroller of the Currency (OCC), the Federal Reserve Board (FRB), the Federal Deposit Insurance Corporation (FDIC) and/or other governmental authorities (such as consent orders, required corrective actions, restrictions and penalties that may arise, for example, with respect to compliance deficiencies under existing or new banking and consumer protection laws and regulations or with respect to capital adequacy);
- the risks associated with the geographic concentration of HEI's businesses and ASB's loans, ASB's concentration in a single product type (i.e., first mortgages) and ASB's significant credit relationships (i.e., concentrations of large loans and/or credit lines with certain customers);
- changes in accounting principles applicable to HEI and its subsidiaries, including the adoption of new U.S. accounting standards, the potential discontinuance of regulatory accounting related to PBR or other regulatory changes, the effects of potentially required consolidation of variable interest entities (VIEs), or required finance lease or on-balance-sheet operating lease accounting for PPAs with IPPs;
- faster than expected loan prepayments that can cause a decrease in net interest income and portfolio yields, an acceleration of the amortization of premiums on loans and investments and the impairment of mortgage-servicing assets of ASB;

- changes in ASB's loan portfolio credit profile and asset quality and/or mix, which may increase or decrease the required level of provision for credit losses, allowance for credit losses (ACL) and charge-offs;
- changes in ASB's deposit levels, cost or mix which may have an adverse impact on ASB's cost of funds;
- unanticipated changes from the expected discontinuance of London Inter-Bank Offered Rate (LIBOR) and the transition to an alternative reference rate, which may include adverse impacts to the Company's cost of capital, loan portfolio and interest income on loans;
- the final outcome of tax positions taken by HEI and its subsidiaries;
- the ability of the Company's non-regulated subsidiary, Pacific Current, LLC (Pacific Current), to achieve its performance and growth objectives, which in turn could affect its ability to service its non-recourse debt;
- the Company's reliance on third parties and the risk of their non-performance, which has increased due to the impact from the COVID-19 pandemic supply chain issues; and
- other risks or uncertainties described elsewhere in this report (e.g., Item 1A. Risk Factors) and in other reports previously and subsequently filed by HEI and/or Hawaiian Electric with the Securities and Exchange Commission (SEC).

Forward-looking statements speak only as of the date of the report, presentation or filing in which they are made. Except to the extent required by the federal securities laws, HEI, Hawaiian Electric, ASB, Pacific Current and their subsidiaries undertake no obligation to publicly update or revise any forward-looking statements, whether written or oral and whether as a result of new information, future events or otherwise.

PART I

ITEM 1. BUSINESS

HEI Consolidated

HEI and subsidiaries and lines of business. HEI is a holding company with its subsidiaries principally engaged in electric utility, banking, and non-regulated renewable/sustainable infrastructure businesses operating in the State of Hawaii. As a holding company with no significant operations of its own, HEI's sources of funds are dividends or other distributions from its operating subsidiaries, borrowings, and sales of equity. The rights of HEI and its creditors and shareholders to participate in any distribution of the assets of any of HEI's subsidiaries are subject to the prior claims of the creditors and preferred shareholders of such subsidiary, except to the extent that claims of HEI in its capacity as a creditor are recognized as primary. The abilities of certain of HEI's subsidiaries to pay dividends or make other distributions to HEI are subject to contractual and regulatory restrictions (see Note 15 of the Consolidated Financial Statements). HEI is headquartered in Honolulu, Hawaii and has three reportable segments—Electric utility, Bank, and Other.

Electric Utility. Hawaiian Electric and its operating utility subsidiaries, Hawaii Electric Light Company, Inc. (Hawaii Electric Light) and Maui Electric Company, Limited (Maui Electric), are regulated electric public utilities that provide essential electric service to approximately 95% of Hawaii's population through the operation of five separate grids that serve communities on the islands of Oahu, Hawaii, Maui, Lanai and Molokai. See also "Electric utility" section below.

Bank. ASB is one of the largest financial institutions in the State of Hawaii (based on total assets), with assets totaling approximately $9.7 billion as of December 31, 2023. ASB provides a wide array of banking and other financial services to Hawaii consumers and businesses. See also "Bank" section below.

Other. The "Other" segment is composed of HEI's corporate-level operating, general and administrative expenses and the results of Pacific Current, LLC (Pacific Current). Pacific Current was formed in September 2017 to focus on investing in non-regulated clean energy and sustainable infrastructure in the State of Hawaii to help reach the state's sustainability goals. See also "Electric utility—Hawaii Electric Light firm capacity PPAs" section below and Note 4 of the Consolidated Financial Statements for additional information on Pacific Current activities. The "Other" segment also includes ASB Hawaii, Inc. (ASB Hawaii) (a holding company), which owns ASB.

Additional information. For additional information about HEI, see HEI's MD&A, HEI's "Quantitative and Qualitative Disclosures about Market Risk" and HEI's Consolidated Financial Statements.

The Company's website address is www.hei.com, where annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports (last 10 years) are made available free of charge in the Investor Relations section as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC (and available at the SEC's website at www.sec.gov). The information on the Company's website is not incorporated by reference in this annual report on Form 10-K unless, and except to the extent, specifically incorporated herein by reference. HEI and Hawaiian Electric intend to continue to use HEI's website as a means of disclosing additional information. Accordingly, investors should routinely monitor such portions of HEI's website, in addition to following HEI's, Hawaiian Electric's and ASB's press releases, SEC filings and public conference calls and webcasts. Investors may also wish to refer to the PUC website at hpuc.my.site.com/cdms/s/ in order to review documents filed with and issued by the PUC. No information at the PUC website is incorporated herein by reference, and the Company has no control over its accuracy or completeness.

Regulation. HEI and Hawaiian Electric are each holding companies within the meaning of the Public Utility Holding Company Act of 2005 and implementing regulations, which requires holding companies and their subsidiaries to grant the Federal Energy Regulatory Commission (FERC) access to books and records relating to FERC's jurisdictional rates. FERC granted HEI and Hawaiian Electric a waiver from its record retention, accounting and reporting requirements, effective May 2006.

HEI is subject to an agreement entered into with the PUC (the PUC Agreement) which, among other things, requires PUC approval of any change in control of HEI. The PUC Agreement also requires HEI to provide the PUC with periodic financial information and other reports concerning intercompany transactions and other matters. It also prohibits the electric utilities from loaning funds to HEI or its nonutility subsidiaries and from redeeming common stock of the electric utility subsidiaries without PUC approval. Further, the PUC could limit the ability of the electric utility subsidiaries to pay dividends on their common stock. See also Note 15 of the Consolidated Financial Statements and "Electric utility—Regulation" below.

In October 2021, Pacific Current requested informal guidance from the PUC regarding application of the affiliate transaction requirements (ATRs) to certain investments. In response, in January 2022, the PUC issued guidance (Order No. 38186, Docket No. 2018-0065) providing that, if Pacific Current acquires or invests in an unaffiliated entity that has been awarded a power purchase agreement with the Utilities through the Stage 1 or 2 Request for proposals (RFPs), such entity would become an "Affiliate" or "Affiliate-Related Entity" under the ATRs, and any wholesale power transactions between the entity and the Utilities, including under the awarded power purchase agreement, would require PUC review and approval. Such a requirement may impact Pacific Current's competitiveness in acquiring and investing in new utility-scale projects in the Utilities' service territory and thereby impact the pace and extent of Pacific Current's growth. As a result of the D&O, Pacific Current intends to focus its future growth activities on projects not subject to a power purchase agreement with the Utilities or projects outside of the Utilities' service territory.

HEI and ASB Hawaii are subject to Federal Reserve Board (FRB) regulation, supervision and reporting requirements as savings and loan holding companies. As a result of the enactment of the Dodd-Frank Act, supervision and regulation of HEI and ASB Hawaii, as thrift holding companies, moved to the FRB, and supervision and regulation of ASB, as a federally chartered savings bank, moved to the Office of the Comptroller of the Currency (OCC) in July 2011. In the event the OCC has reasonable cause to believe that any activity of HEI or ASB Hawaii constitutes a serious risk to the financial safety, soundness or stability of ASB, the OCC is authorized to impose certain restrictions on HEI, ASB Hawaii and/or any of their subsidiaries. Possible restrictions include precluding or limiting: (i) the payment of dividends by ASB; (ii) transactions between ASB, HEI or ASB Hawaii, and their subsidiaries or affiliates; and (iii) any activities of ASB that might expose ASB to the liabilities of HEI and/or ASB Hawaii and their other affiliates. See also Note 15 of the Consolidated Financial Statements.

The Gramm-Leach-Bliley Act of 1999 (Gramm Act) permitted banks, insurance companies and investment firms to compete directly against each other, thereby allowing "one-stop shopping" for an array of financial services. Although the Gramm Act further restricted the creation of so-called "unitary savings and loan holding companies" (i.e., companies such as HEI whose subsidiaries include one or more savings associations and one or more nonfinancial subsidiaries), the unitary savings and loan holding company relationship among HEI, ASB Hawaii and ASB is "grandfathered" under the Gramm Act so that HEI and its subsidiaries will be able to continue to engage in their current activities so long as ASB maintains its qualified thrift lender (QTL) status test discussed under "Bank—Regulation—Qualified thrift lender test." ASB met the QTL test at all times during 2023; however, the failure of ASB to satisfy the QTL test in the future could result in a need for HEI to divest ASB. Under the Gramm Act, any proposed sale of ASB would have to satisfy applicable statutory and regulatory requirements and potential acquirers of ASB would most likely be limited to companies that are already qualified as, or capable of qualifying as, either a traditional savings and loan association holding company or a bank holding company, or as one of the authorized financial holding companies permitted under the Gramm Act.

See "Bank—Legislation and regulation" in HEI's MD&A for a discussion of effects of the Dodd-Frank Act on HEI and ASB.

Environmental regulation. HEI and its subsidiaries are subject to federal and state statutes and governmental regulations pertaining to water quality, air quality and other environmental factors. See the "Environmental regulation" discussions in the "Electric utility" and "Bank" sections below, and Note 1 of the Consolidated Financial Statements.

Human Capital Resources.

Employees. The Company had total and full-time employees as follows:

December 31	2023		2022		2021	
	Total employees	Full-time employees	Total employees	Full-time employees	Total employees	Full-time employees
HEI[1]	75	75	79	79	49	49
Hawaiian Electric and its subsidiaries	2,654	2,564	2,605	2,511	2,504	2,469
ASB	977	958	1,072	1,050	1,096	1,079
	3,706	3,597	3,756	3,640	3,649	3,597

[1] Includes Pacific Current. The increase in employees from 2021 is related to Pacific Current's acquisition of a closed-loop biomass plant in 2022.

The employees of HEI and its direct and indirect subsidiaries, other than the electric utilities, are not covered by any collective bargaining agreement. The Utilities target compensation at market rates, and due to the significant increase in competitive market pay for linemen over the past few years, provided an 11.4% market rate adjustment and a 4% annual incentive effective February 1, 2024. The International Brotherhood of Electrical Workers Local 1260 represents roughly half of the Utilities' workforce covered by a collective bargaining agreement. On January 26, 2024, a new three-year contract was ratified and will be in effect from November 1, 2024 through October 31, 2027. The contract provides for a 3% general wage increase in each year of the three-year contract, double time for callouts, and a 1% incentive payment upon achievement of specified objectives.

Diversity & inclusion. Diversity and inclusion are essential to the continued success of the Company. The Company values gender, religious beliefs, race, marital status, ethnicity, parental status, age, education, physical and mental ability, socio-economic status, sexual orientation, occupation, language, geographic location, and many more components. The Company believes an inclusive culture encourages collaboration, excellence and innovation, and helps guide the Company's decision-making and its ability to meet its customers' and community's needs. Operating exclusively in Hawaii, one of the most racially diverse states* in the U.S., the Company believes it is important that its workforce reflects this diversity.

The demographic information below is disaggregated by the sex/gender and race of all employees, including those on long-term leave, and part-time and temporary status.

*World Population Review: Most Diverse States 2024 (worldpopulationreview.com)

Diversity representation

	HEI[5]		Hawaiian Electric		ASB	
	Female	Racially diverse[1]	Female	Racially diverse[1]	Female	Racially diverse[1]
Executives[2]	44.4%	55.6%	28.6%	57.1%	44.4%	77.8%
Leaders[3]	61.5%	92.3%	29.2%	83.7%	64.5%	84.7%
All workforce[4]	52.0%	89.3%	29.2%	89.8%	65.9%	89.0%

[1] Racially diverse defined as all races/ethnicities that are not 'White' (as defined by the EEO-1 categories)
[2] Executives includes EE0-1 category 1.1-Executive/Sr. Level Officials
[3] Leaders includes EE0-1 category 1.2-First/Mid-Level Officials
[4] All Workforce includes EE0-1 categories 1.1-Executive/Sr. Level Officials, 1.2-First/ Mid-Level Officials, 2-Professionals, 3-Technicians, 4-Sales Workers, 5-Administrative Support Workers, 6-Craft Workers, 7-Operatives, 8-Laborers and Helpers, 9-Service Workers
[5] Includes Pacific Current and Mahipapa LLC employees

Racial composition		Diversity-All workforce		
	Hawaii[1]	HEI[2]	Hawaiian Electric	ASB
White	20.7%	10.7%	10.2%	11.0%
Asian	34.6%	54.7%	50.3%	59.2%
Black	1.6%	1.3%	0.7%	0.6%
Hispanic	11.1%	0.0%	4.1%	5.9%
Native Hawaiian or other Pacific Islander	9.3%	21.3%	12.3%	13.6%
American Indian or Alaska Native	0.1%	1.3%	0.3%	—%
Two or more races	22.1%	10.7%	22.1%	9.6%

[1] Source: 2022 U.S. Census Bureau American Community Survey 1-Year Estimate
[2] Includes Pacific Current and Mahipapa LLC employees

Employee development & training. In order to meet the changing demands of the industries in which the Company operates, address the needs of the Company's stakeholders, attract, engage and retain talented employees, and design and carry out the Company's strategies, it is crucial for the Company's workforce to be highly skilled in their areas of focus and be able to adapt and evolve over time. As such, the Company invests in specific skill enhancement training as well as industry and leadership development programs.

Hawaiian Electric. Hawaiian Electric offers Hawaiian Electric and HEI holding company employees skills and professional training programs, including leadership development courses, employee development courses, technical training, apprenticeship programs, operational, environmental compliance, cybersecurity awareness and required safety training. Hawaiian Electric also offers tailored leadership development programs, including supervisor training to transition new supervisors to critical operational, administrative, and leadership roles as well as leadership and employee assessments geared to improve productivity and effectiveness in the workplace. Leadership development metrics are included in executive and management incentive plans. Learning and development initiatives align with individual and organizational performance, and are reinforced in the annual performance evaluation process. Ongoing leadership succession planning ensures the identification and development of successors, high potential individuals, and nurtures a leadership pipeline.

ASB. ASB invests in continuous training and development of its employees. Curriculum includes technical banker training programs that cover all aspects of banking laws, banking operations, new product and service offerings, legal and regulatory compliance and company procedures and ethics. The Bank delivers financial education, empowering employees to provide valuable customer guidance. ASB offers opportunities for all employees to grow and build their careers, through a multitude of professional training and leadership topics, including Communicating with Confidence, Managing Conflict, Emotional Intelligence, and Respect in the Workplace. ASB further invests in leadership development through targeted programs, designed to enhance leadership skills and broaden knowledge of the banking industry. These include Leading the ASB Way which is required for all newly hired/promoted leaders, and Leadership Academy, a robust 12-15 month cohort program for well-established leaders. Offerings are delivered across various learning modalities including classroom instruction, small group discussions, online resources, and on-the-job application. ASB's focus on meaningful growth and development opportunities positions the Bank to recruit and retain top talent.

Safety and health. As a core value, the Company strives to create workplace environments that prioritize the physical and emotional well-being of its employees. For the Utility, safety is of paramount importance due to the inherent risks involved in certain aspects of its operations and the critical role the Utility plays in maintaining the electrical grid for the State of Hawaii.

Hawaiian Electric. Hawaiian Electric is committed to maintaining a strong safety culture. Due to the intrinsic nature of its operations, safety is part of Hawaiian Electric's DNA. Management proactively assumes the responsibility of providing visible leadership and strategic direction for the health and safety management system and programs in their area of oversight. This leadership and direction are instrumental to building and sustaining a resilient safety culture and drive continual safety improvement. Allocating adequate resources to enable seamless implementation of safety programs and holding leaders accountable for the implementation of safety programs and resulting health and safety performance are a strategic requirement. This commitment is shown in the Executive compensation which is tied to the achievement of recordable incidents and lost workdays targets. These targets reward improvements in workplace safety, promote employee well-being, and contribute to long-term expense reductions. Hawaiian Electric promotes a safety culture that aims for zero incidents, with every employee taking ownership of their own safety, as well as that of their co-workers, contractors, and the public. More information on such targets is available in HEI's annual proxy statement.

Hawaiian Electric is creating a culture of total well-being to support its employees from hire to retire and beyond by instituting best practices and advancing wellness as a business strategy. Some of the programs and benefits that foster employees' total well-being include emotional, physical, occupational, social, spiritual, intellectual, environmental and financial. These programs include access to an extensive Employee Assistance Program for employees and their family members, participation in various community charity walks, wellness related trainings and resources, an onsite vaccination program, preventive screenings, a wide variety of corporate wellness activities, gym and group fitness discounts, and financial wellness classes.

ASB. ASB is committed to supporting the continued health and safety of its employees through a holistic approach that focuses on various aspects of wellness including nutrition, fitness, mindfulness and finances. ASB encourages participation in the program through various physical challenges and community charity walks. ASB also offers outdoor and virtual fitness classes, including high intensity interval training and yoga. ASB's employees can participate in a program which allows them to enjoy national fitness center chains or workout in their homes at a reduced price. To further support ASB's employees' well-being, ASB rewards everyone who completes an annual preventative health screening with a Wellness Holiday, offers a robust employee assistance program, and provides many family-friendly benefits, including generous and gender-neutral parental leave.

Workforce Stability. The Company's employees are its greatest asset and the Company strives to create a highly desirable place to work.

Hawaiian Electric. Hawaiian Electric seeks to provide compensation and benefits that are comprehensive, market-competitive, and internally equitable to attract, engage, and retain highly skilled employees. Hawaiian Electric believes that employee engagement is key to creating a desirable, inclusive, rewarding place to work and conducts employee engagement surveys on a regular cycle, and, more recently, change management surveys to assess and support the organizations' adaptability to change. Hawaiian Electric is expanding its strategic workforce planning initiative to build its workforce to support future transformation plans.

ASB. ASB seeks to attract, develop, and retain high performers who not only excel at their jobs but who also align with ASB's priorities and objectives. ASB strives to provide competitive pay and benefits and an award-winning culture that attracts top talent. ASB regularly conducts anonymous employee surveys to gather feedback on their work experience. Topics covered include confidence in company leadership, career growth opportunities, diversity and inclusion, and suggestions on how to create a great place to work. Survey results are shared with leaders, who prioritize actions and activities in response to feedback to drive meaningful improvements in employee engagement. ASB's talent management process is integrated into its business process and its human capital management strategy is part of its business strategy. ASB's investment in creating a great place to work and innovative, inclusive programs have resulted in it being recognized both locally and nationally for its workplace culture.

Properties. HEI leases office space from nonaffiliated lessors in downtown Honolulu under leases that expire in December 2027. See "Electric Utility" and "Bank" sections for a description of properties they own and lease.

Hamakua Energy, LLC (Hamakua Energy), an indirect wholly owned subsidiary of Pacific Current, which is included in the "Other" segment, owns a 60-MW dual-train combined-cycle facility and a total of approximately 93 acres located on the Hamakua coast on the island of Hawaii. Its power plant is situated on approximately 59 acres and the remaining 34 acres includes surrounding parcels of which 30 acres are located on the ocean front. Ka'ie'ie Waho Company, LLC (Ka'ie'ie Waho), a wholly owned subsidiary of Pacific Current, owns a 6-MW solar photovoltaic facility located on approximately 20 acres on the southern coast of the island of Kauai. Mahipapa, LLC (Mahipapa), a wholly owned subsidiary of Pacific Current, owns a 7.5-MW biomass facility located on approximately 65 acres of land and leases 3,500 acres on the island of Kauai.

Electric utility

Hawaiian Electric and subsidiaries and service areas. Hawaiian Electric, Hawaii Electric Light and Maui Electric (Utilities) are regulated operating electric public utilities engaged in the production, purchase, transmission, distribution and sale of electricity on the islands of Oahu; Hawaii; and Maui, Lanai and Molokai, respectively.

In 2023, the electric utilities' revenues and net income amounted to approximately 89% and 97% respectively, of HEI's consolidated revenues and net income, compared to approximately 91% and 78% in 2022 and approximately 89% and 72% in 2021, respectively.

The islands of Oahu, Hawaii, Maui, Lanai and Molokai have a combined population estimated at 1.4 million, or approximately 95% of the total population of the State of Hawaii, and comprise a service area of 5,815 square miles. The principal communities served include Honolulu (on Oahu), Hilo and Kona (on Hawaii) and Wailuku and Kahului (on Maui). The service areas also include numerous suburban communities, resorts, U.S. Armed Forces installations and agricultural operations. In November 2020, the PUC approved Hawaiian Electric's acquisition of the electric distribution systems serving 12 U.S. Army installations on Oahu, including Schofield Barracks, Wheeler Army Airfield, Tripler Army Medical Center, Fort Shafter and Army housing areas.

The state has granted Hawaiian Electric, Hawaii Electric Light and Maui Electric nonexclusive franchises, which authorize the Utilities to construct, operate and maintain facilities over and under public streets and sidewalks. Each of these franchises will continue in effect for an indefinite period of time until forfeited, altered, amended or repealed.

Climate change action plan. In 2021, the Utilities set an aggressive goal to cut carbon emissions from power generation 70% by 2030, compared with 2005 levels. The emissions covered by this goal include stack emissions from generation owned by Hawaiian Electric and independent power producers (IPPs) who sell electricity to the Utilities. In addition, the Utilities have committed to achieving net zero carbon emissions from power generation by 2045 or sooner. These commitments are aligned with the Intergovernmental Panel on Climate Change recommendation of no more than 1.5°C average global warming to avoid potentially devastating climate events.

Key elements of the 2030 plan to reduce emissions include:

- The closing of the state's last coal plant, which occurred in September 2022 upon expiry of the PPA
- Adding nearly 50,000 rooftop solar systems, more than a 50% increase, compared to the approximately 90,000 systems online in 2021 when the Climate Change action plan was developed
- Retiring at least six fossil-fueled generating units and significantly reducing the use of others as new renewable resources come online
- Adding additional renewable energy projects capable of generating a total of at least 1 gigawatt beyond resources in place in 2021, including shared solar (community-based renewable energy)
- Using more grid-scale and customer-owned energy storage
- Expanding geothermal resources
- Creating innovative programs that provide customers incentives for using clean, lower-cost energy at certain times of the day and using less fossil-fueled energy at night

Since the time the 2030 goal was established, delays and cancellations in the commercial operation of new renewable third-party generation resources and higher costs as a result of supply chain disruptions and inflationary pressures, as well as federal policies related to solar panel imports, have slowed the pace of progress toward reducing greenhouse gas (GHG) emissions. The downgrade of Hawaiian Electric's credit ratings after the Maui windstorm and wildfires is anticipated to be an additional impediment to completion of new renewable energy and storage projects. As a result of these challenges, the Utilities expect the planned 70% reduction in carbon emissions to be achieved later than the original 2030 target date. However, the Utilities will continue to replace significant amounts of fossil fuel generation with renewable energy between now and 2030 and expect to meet or exceed the State of Hawaii's RPS goals.

After 2030, progress on elimination of carbon from power generation assumes continued use of proven resources, including wind, solar, geothermal, hydroelectric, biofuels and energy storage, along with the development of new technologies.

Those technologies may include offshore wind, green hydrogen, wave energy and carbon-capture—all currently under development around the world—as well as other solutions that will emerge. A diverse portfolio of resources will also enhance resilience to climate-related events.

Sales of electricity.

Years ended December 31	2023			2022			2021		
(dollars in thousands)	Customer accounts*		Electric sales revenues	Customer accounts*		Electric sales revenues	Customer accounts*		Electric sales revenues
Hawaiian Electric	309,631	$	2,324,044	306,978	$	2,422,232	308,721	$	1,772,183
Hawaii Electric Light	89,477		458,157	88,757		479,566	88,103		375,775
Maui Electric	72,497		443,017	73,933		464,823	73,788		359,648
	471,605	$	3,225,218	469,668	$	3,366,621	470,612	$	2,507,606

* As of December 31.

Regulatory mechanisms. Base electric rates are set in rate cases, and on April 29, 2020, the PUC issued an order terminating the mandatory triennial rate case cycle in anticipation of the performance-based regulation framework (PBR Framework). The regulatory framework in effect in 2020 included a number of mechanisms designed to provide utility financial stability during the transition toward the state's 100% renewable energy goals. For example, under the sales decoupling mechanism, the Utilities are allowed to recover from customers, target test year revenues, independent of the level of kilowatt-hour (kWh) sales. The decoupling mechanism (i.e., the Revenue Balancing Account) continues under the PBR Framework.

On December 23, 2020, the PUC issued a D&O in Phase 2 of the PBR proceeding, establishing the PBR Framework for the Utilities. The PBR Framework includes, among other matters, a five-year multi-year rate plan with an index-driven annual revenue adjustment (ARA), which replaces the RAM, modification of the MPIR mechanism (renamed Exceptional Project Recovery Mechanism (EPRM)) to include deferred and operation and maintenance (O&M) expense projects and to permit the Utilities to include the full amount of approved costs in the EPRM for recovery in the first year the project goes into service, pro-rated for the portion of the year the project is in service, and continuation of (i) the revenue balancing account, (ii) the pension and other postretirement benefit tracking mechanisms, and (iii) energy cost recovery clause, purchased power adjustment clause, and other recovery mechanisms. See "Commitments and contingencies-Regulatory proceedings-Performance-based regulation framework" in Note 4 of the Consolidated Financial Statements.

A summary of these regulatory mechanisms, most of which have been either maintained, modified, or approved under PBR as noted, is as follows:

Mechanism	**Description**	**PBR Framework (effective June 2021)**
Sales decoupling	Provides predictable revenue stream by fixing net revenues at the level approved in last rate case (revenues not linked to kWh sales).	Maintained under PBR.
Annual Revenue Adjustment (ARA)	Annually adjusts revenue levels during a Multi-Year Rate Period, determined by formula which includes an inflation factor, a predetermined productivity adjustment (currently set at zero), adjustments for exceptional circumstances not in the Utilities' control and a customer dividend.	Replaced the Revenue Adjustment Mechanism (RAM) effective June 1, 2021. The transition to the ARA includes the continuation of the 2020 RAM revenue adjustment.
Exceptional Project Recovery Mechanism (EPRM)	Reduces regulatory lag and permits recovery of revenues for net costs of approved eligible projects placed in service during the Multi-Year Rate Period through the revenue balancing account (RBA) that is not provided for by other effective tariffs, the ARA, Performance Incentive Mechanism (PIMS) or Shared Savings Mechanisms (SSMs).	Formerly known as the Major Project Interim Recovery (MPIR) adjustment mechanism. The EPRM was modified to include recovery of both capital and O&M expenses and to permit the Utilities to include the full amount of approved costs for recovery in the first year that projects are placed into service, pro-rated for the portion of the year that projects are in service.
Energy cost recovery clause (ECRC) and purchased power adjustment clause (PPAC)	Allows for timely recovery of fuel and purchased power costs to reduce earnings volatility. Symmetrical fossil fuel cost risk-sharing (98% customer/2% utility) mechanism established for Hawaiian Electric, Hawaii Electric Light and Maui Electric capped at $2.5 million, $0.6 million and $0.6 million annually, respectively.	Maintained under PBR.
Performance incentive mechanism (PIM) / Shared Savings Mechanism (SSM)	Annually adjusts revenue to recover from or credit customers for specific areas of the Utilities' performance measured against the PUC's approved targets.	Maintained under PBR with a portfolio of SSMs and new PIMs added to encourage acceleration in renewables, grid services, interconnection of DERs, low-to-moderate income energy efficiency, advanced metering infrastructure, generation-based reliability (penalties only), interconnection of utility scale renewable projects, and cost control of non-ARA costs and allows for financial rewards for exemplary performance.
Pension and other post-employment benefit trackers	Allow tracking of pension and other post-employment benefit costs and contributions above or below the cost included in rates in a separate regulatory asset/liability account.	Maintained under PBR.
Renewable energy infrastructure program	Permits recovery of renewable energy infrastructure projects through a surcharge.	Maintained under PBR.
Expedited Pilot Process	Fosters innovation by establishing an expedited implementation process for pilots that test new technologies, programs, business models and other arrangements. Proposed pilots are subject to PUC approval with a total annual cap of $10 million.	Approved under PBR to allow for timely cost recovery of annual expenditures of approved pilot projects through an adjustment to target revenues.
Earnings Sharing Mechanism (ESM)	Protects the Utilities and customers from excessive earnings or losses, as measured by the Utilities' achieved rate making ROACE.	Maintained under PBR, adjusted to reflect a symmetrical ESM for achieved rate making ROACE outside of a 300 basis points dead band above or below the current authorized ROACE of 9.5% for each of the Utilities.

Seasonality. kWh sales of the Utilities follow a seasonal pattern, but they do not experience extreme seasonal variations experienced by some electric utilities on the U.S. mainland. In Hawaii, kWh sales tend to increase in the warmer, more humid months as a result of increased demand for air conditioning, and with cloudy and rainy weather due to lower production by privately owned customer photovoltaic (PV) systems. In 2023, kWh sales decreased compared to the prior year due to impacts from the Maui windstorm and wildfires. In addition, the continued adoption of energy efficiency measures and distributed energy resources contributed to the reduction in kWh sales.

Significant customers. The Utilities derived approximately 12%, 12% and 11% of their operating revenues in 2023, 2022 and 2021, respectively from the sale of electricity to various federal government agencies. Hawaiian Electric continues to work with various federal agencies to implement measures that will help them achieve their energy efficiency, resilience and clean energy objectives.

Selected consolidated electric utility operating statistics.

Years ended December 31	2023	2022	2021	2020	2019
MWh sales (thousands)					
Residential	2,342.1	2,415.2	2,491.6	2,525.4	2,439.3
Commercial	2,586.7	2,628.8	2,572.5	2,456.0	2,793.0
Industrial	3,273.5	3,295.7	3,174.3	3,118.0	3,467.2
Other	24.4	14.3	22.7	20.8	40.5
	8,226.7	8,354.0	8,261.1	8,120.2	8,740.0
MWh net generated and purchased (thousands)					
Net generated	5,343.0	5,011.9	4,501.0	4,629.2	4,972.7
Purchased	3,271.2	3,750.4	4,153.7	3,896.2	4,168.6
	8,614.2	8,762.3	8,654.7	8,525.4	9,141.3
MWh customer-sited solar (thousands)	1,585.5	1,522.4	1,418.0	1,325.8	1,224.6
RPS (%)[1]	33.3	31.8	38.4	34.5	28.4
Losses and system uses (%)	4.2	4.4	4.3	4.5	4.2
Energy supply (December 31)					
Net generating capability—MW	1,739	1,738	1,738	1,737	1,737
Firm and other purchased capability—MW[2]	362	362	540	517	517
	2,101	2,100	2,278	2,254	2,254
Net peak demand—MW[3]	1,447	1,467	1,471	1,471	1,601
Btu per net kWh generated	11,102	10,941	10,988	10,834	10,860
Average fuel oil cost per MBtu (cents)	2,060.0	2,310.9	1,305.4	1,028.7	1,337.6
Customer accounts (December 31)					
Residential	416,072	413,744	414,713	412,484	409,689
Commercial	54,060	54,416	54,373	54,035	54,233
Industrial	702	696	698	694	700
Other	771	812	828	826	844
	471,605	469,668	470,612	468,039	465,466
Electric revenues (thousands)					
Residential	$ 1,028,415	$ 1,069,974	$ 843,655	$ 770,135	$ 791,398
Commercial	1,029,927	1,077,521	802,878	708,180	829,000
Industrial	1,156,909	1,211,242	853,293	754,775	884,722
Other	9,967	7,884	7,780	6,440	11,915
	$ 3,225,218	$ 3,366,621	$ 2,507,606	$ 2,239,530	$ 2,517,035
Average revenue per kWh sold (cents)	39.21	40.30	30.35	27.58	28.80
Residential	43.91	44.30	33.86	30.50	32.44
Commercial	39.82	40.99	31.21	28.83	29.68
Industrial	35.34	36.75	26.88	24.21	25.52
Other	40.79	55.24	34.19	31.01	29.39
Residential statistics					
Average annual use per customer account (kWh)	5,628	5,821	6,022	6,145	5,967
Average annual revenue per customer account	$ 2,471	$ 2,579	$ 2,039	$ 1,874	$ 1,936
Average number of customer accounts	416,177	414,910	413,725	410,973	408,768

1. In July 2022, Governor Ige signed Act 240 (H.B.2089), which amended the RPS calculation from renewable energy as a percentage of sales to renewable energy as a percentage of total generation. The amended RPS calculation results in a lower calculated percentage than the amount calculated under the previous methodology.

2 Puna Geothermal Venture (PGV) with 34.6 MW of firm capacity went offline due to lava flow on Hawaii Island in May 2018, but returned to service in the first quarter of 2021 and is currently providing 25.7 MW. Additionally, AES Hawaii provided 180 MW of firm capacity from its coal-fired cogeneration plant. The purchase power agreement expired on September 1, 2022 and was not renewed. The AES Hawaii coal plant has ceased operations.

3 Sum of the net peak demands on all islands served, noncoincident and nonintegrated.

Generation statistics. The following table contains certain generation statistics as of and for the year ended December 31, 2023. The net generating and firm purchased capability available for operation at any given time may be more or less than shown because of capability restrictions or temporary outages for inspection, maintenance, repairs or unforeseen circumstances.

	Hawaiian Electric	Hawaii Electric Light	Maui Electric			
	Island of Oahu	Island of Hawaii	Island of Maui	Island of Lanai	Island of Molokai	Total
Net generating and firm purchased capability (MW) as of December 31, 2023[1]						
Conventional oil-fired steam units	999.5	50.1	35.9	—	—	1,085.5
Diesel internal combustion engine	—	29.5	98.6	9.4	9.8	147.3
Simple-cycle combustion turbines	230.8	46.3	—	—	2.2	279.3
Dual train combined-cycle unit	—	56.3	113.6	—	—	169.9
Biodiesel internal combustion engine	57.4	—	—	—	—	57.4
Firm contract power[2]	276.5	85.7	—	—	—	362.2
	1,564.2	267.9	248.1	9.4	12.0	2,101.6
Net peak demand (MW)[3]	1,060.0	187.3	187.9	6.0	5.8	1,447.0
Reserve margin	47.5%	43.0%	34.6%	56.7%	106.9%	45.2%
Annual load factor	69.0%	67.6%	62.6%	66.7%	61.2%	68.0%
MWh net generated and purchased (thousands)	6,409.3	1,108.7	1,030.1	35.1	31.1	8,614.3

1 Hawaiian Electric units at normal ratings; Hawaii Electric Light and Maui Electric units at reserve ratings.
2 Nonutility generators - Hawaiian Electric: 208 MW (Kalaeloa Partners, L.P., oil-fired) and 68.5 MW (HPOWER, refuse-fired); Hawaii Electric Light: 60 MW (Hamakua Energy, oil-fired). Hawaii Electric Light also has a firm capacity PPA with PGV for 34.6 MW that went offline due to lava flow on Hawaii Island since May 2018, but returned to service with firm capacity in the first quarter of 2021. PGV's current capability of 25.7 MW has been incorporated into the utility's firm contract power capability as of December 31, 2023.
3 Noncoincident and nonintegrated.

Generating reliability and reserve margin. Hawaiian Electric serves the island of Oahu and Hawaii Electric Light serves the island of Hawaii. Maui Electric has three separate electrical systems—one each on the islands of Maui, Molokai and Lanai. Hawaiian Electric, Hawaii Electric Light and Maui Electric have isolated electrical systems that are not currently interconnected to each other or to any other electrical grid and, thus, each maintains a higher level of reserve generation and cost structure than is typically carried by interconnected mainland U.S. utilities, which are able to share reserve capacity. These higher levels of reserve margins are required to meet peak electric demands, to provide for scheduled maintenance of generating units (including the units operated by IPPs relied upon for firm capacity) and to allow for the forced outage of the largest generating unit in the system.

Nonutility generation. The Utilities have supported state and federal energy policies which encourage the development of renewable energy sources that reduce the use of fuel oil as well as the development of qualifying facilities. The Utilities' renewable energy sources and potential sources range from wind, solar, photovoltaic, geothermal, wave and hydroelectric power to energy produced by municipal waste and other biofuels.

The rate schedules of the electric utilities contain ECRCs and PPACs that allow them to recover costs of fuel and purchase power expenses.

In addition to the firm capacity PPAs described below, the electric utilities also purchase energy on an as-available basis directly from nonutility generators and through its Feed-In Tariff programs, as well as through renewable dispatchable generation power purchase agreements. The electric utilities also receive renewable energy from customers under its Net Energy Metering and Customer Grid Supply programs.

The PUC has allowed rate recovery for the firm capacity and purchased energy costs for the electric utilities' approved firm capacity and as-available energy PPAs.

Hawaiian Electric firm capacity PPAs. Hawaiian Electric currently has two major firm capacity PPAs that provide a total of 276.5 MW of firm capacity, representing 18% of Hawaiian Electric's total net generating and firm purchased capacity on the Island of Oahu as of December 31, 2023.

Under a 1988 PPA, as amended, Hawaiian Electric is committed to purchase 208 MW of firm capacity from Kalaeloa Partners, L.P. (Kalaeloa). The Kalaeloa facility, which is a Qualifying Facility (QF), is a combined-cycle operation, consisting of two oil-fired combustion turbines burning low sulfur fuel oil (LSFO) and a steam turbine that utilizes waste heat from the combustion turbines. The PPA term ended on May 23, 2016 and was extended while the parties were in negotiations for a new agreement. The parties executed an Amended and Restated Power Purchase Agreement (ARPPA) on October 29, 2021, which among other provisions extends the term for ten contract years after the effective date. The ARPPA was approved on November 23, 2022. The parties executed a letter agreement to establish that the rates under the ARPPA became effective on January 1, 2023.

Hawaiian Electric also entered into a PPA in March 1986 and a firm capacity amendment in April 1991 with the City and County of Honolulu with respect to a refuse-fired plant (HPOWER). Under the PPA, as amended and restated, Hawaiian Electric is committed to purchase 68.5 MW of firm capacity annually up until the PPA expires on April 2, 2033.

Hawaii Electric Light firm capacity PPAs. Hawaii Electric Light has two major firm capacity PPAs that provide a total of 85.7 MW of firm capacity, representing 32% of Hawaii Electric Light's total net generating and firm purchased capacity on the Island of Hawaii as of December 31, 2023.

In October 1997, Hawaii Electric Light entered into an agreement with Encogen, which was succeeded by Hamakua Energy Partners, L. P. (HEP). The agreement requires Hawaii Electric Light to purchase up to 60 MW (net) of firm capacity for a period of 30 years, expiring on December 31, 2030. The dual-train combined-cycle facility consists of two oil-fired combustion turbines and a steam turbine that utilizes waste heat from the combustion turbines, which primarily burns naphtha (a mixture of liquid hydrocarbons) and, starting in late 2019, biodiesel (comprising approximately 24% of HEP's fuel mix in 2023). In November 2017, Hamakua Energy, an indirect subsidiary of HEI, purchased the plant from HEP.

Hawaii Electric Light has a 35-year PPA, as amended, with Puna Geothermal Venture (PGV) for 34.6 MW of firm capacity from its geothermal steam facility, which will expire on December 31, 2027. However, the PGV facility went offline in May 2018 due to lava flow on Hawaii Island. In March 2019, Hawaii Electric Light entered into a Rebuild Agreement with PGV, which sets forth the parties' respective responsibilities associated with restoration of the facility. The Rebuild Agreement shall govern the terms until PGV becomes fully operational. PGV returned to service at a level providing limited output without firm capacity in the fourth quarter of 2020 and is currently providing 25.7 MW of capacity. In December 2019, Hawaii Electric Light entered into an Amended and Restated PPA (ARPPA) with PGV to, among other things, extend the term by 25 years to 2052 and expand the firm capacity capable of being delivered to 46 MW. The ARPPA was approved by the PUC subject to certain conditions on December 29, 2023. See "New renewable PPAs" in the "Developments in renewable energy efforts" section in Hawaiian Electric's MD&A.

Maui Electric firm capacity PPAs. Maui Electric currently has no firm capacity PPAs.

Fuel oil usage and supply. The rate schedules of the Utilities include ECRCs under which electric rates (and consequently the revenues of the electric utility subsidiaries generally) are adjusted for changes in the weighted-average price paid for fuel oil and certain components of purchased power, and the relative amounts of company-generated power and purchased power. See discussion of rates and issues relating to the ECRC below under "Rates."

Hawaiian Electric's steam generating units consume LSFO and Hawaiian Electric's combustion turbine peaking units consume diesel. Hawaiian Electric's Schofield Generating Station consumes mostly B99 grade biodiesel, but is permitted to also burn ultra-low sulfur diesel (ULSD).

Hawaii Electric Light's and Maui Electric's steam generating units burn high sulfur fuel oil (HSFO) and Hawaii Electric Light's and Maui Electric's Maui combustion turbine generating units burn diesel. Hawaii Electric Light's and Maui Electric's Maui, Molokai, and Lanai diesel engine generating units burn ULSD.

See "Fuel contracts" in Hawaiian Electric's MD&A.

The following table sets forth the average cost of fuel oil used by Hawaiian Electric, Hawaii Electric Light and Maui Electric to generate electricity in 2023, 2022 and 2021:

	Hawaiian Electric		**Hawaii Electric Light**		**Maui Electric**		**Consolidated**	
	\$/Barrel	**¢/MBtu**	**\$/Barrel**	**¢/MBtu**	**\$/Barrel**	**¢/MBtu**	**\$/Barrel**	**¢/MBtu**
2023	127.45	2,051.1	124.04	2,063.7	124.86	2,101.1	126.76	2,060.0
2022	144.63	2,339.5	131.36	2,183.4	135.39	2,274.5	141.49	2,310.9
2021	79.10	1,275.9	80.52	1,333.9	83.45	1,404.0	80.06	1,305.4

The average per-unit cost of fuel oil consumed to generate electricity for Hawaiian Electric, Hawaii Electric Light and Maui Electric reflects a different volume mix of fuel types and grades as follows:

	Hawaiian Electric		Hawaii Electric Light		Maui Electric	
	% LSFO	% Biodiesel/Diesel	% HSFO	% Diesel	% HSFO	% Diesel
2023	92	8	35	65	22	78
2022	93	7	36	64	24	76
2021	93	7	41	59	22	78

The prices that Hawaiian Electric and Hawaii Electric Light pay for purchased energy from certain older nonutility generators are generally linked to the price of oil. The energy prices for Kalaeloa, which purchases LSFO from Par Hawaii Refining, LLC (PAR), vary primarily with the price of Asian crude oil. On December 31, 2019, Hawaii Electric Light and PGV entered into an Amended and Restated Power Purchase Agreement, which delinks the pricing for energy delivered from the facility from fossil fuel prices. Hamakua Energy's energy prices vary primarily with the cost of naphtha.

The Utilities estimate that 74% of the net energy they generate will come from fossil fuel oil in 2024 compared to 75% in 2023. Hawaiian Electric generally maintains an average system fuel inventory level equivalent to 47 days of forward consumption. Hawaii Electric Light and Maui Electric generally maintain an average system fuel inventory level equivalent to approximately one month's supply of both HSFO and diesel. The PPA with Hamakua Energy requires that it maintains certain minimum fuel inventory levels.

Rates. Hawaiian Electric, Hawaii Electric Light and Maui Electric are subject to the regulatory jurisdiction of the PUC with respect to rates, issuance of securities, accounting and certain other matters. See "Regulation" below.

General rate increases require the prior approval of the PUC after public and contested case hearings. Rates for Hawaiian Electric and its subsidiaries include ECRCs, and PPACs. Under current law and practices, specific and separate PUC approval is not required for each rate change pursuant to automatic rate adjustment clauses previously approved by the PUC. Public Utility Regulatory Policies Act of 1978 (PURPA) requires the PUC to periodically review the adjustment clauses related to energy cost of electric and gas utilities in the state, and such clauses, as well as the rates charged by the utilities generally, are subject to change. PUC approval is also required for all surcharges and adjustments before they are reflected in rates.

See "Utility projects" under "Commitments and contingencies" in Note 4 of the Consolidated Financial Statements.

Competition. See "Competition" in Hawaiian Electric's MD&A.

Regulation. The PUC regulates the rates, issuance of securities, accounting and certain other aspects of the operations of Hawaiian Electric and its electric utility subsidiaries. See the previous discussion under "Rates".

On September 15, 2014, the State of Hawaii and the U.S. Department of Energy executed a Memorandum of Understanding (MOU) recognizing that Hawaii is embarking on the next phase of its clean energy future. The MOU provides the framework for a comprehensive, sustained effort to better realize its vast renewable energy potential and allow Hawaii to push forward in three main areas: the power sector, transportation and energy efficiency. This next phase is focused on stimulating deployment of clean energy infrastructure as a catalyst for economic growth, energy system innovation and test bed investments.

Electrification of Transportation. In June 2018, the PUC initiated a proceeding to review the Utilities' Electrification of Transportation (EoT) Strategic Roadmap, which provided an economic analysis for light duty electric vehicles on the island of Oahu, Maui and Hawaii. In July 2019 the Utilities filed a study analyzing data regarding the critical backbone for electric vehicle charging needs in their service territories. In October 2019, the Utilities filed their EoT Workplan, establishing a schedule to continue implementation of the EoT roadmap with a focus on EV rate design and make-ready charging infrastructure in the near-term. The Utilities followed through on the EoT Workplan in 2020, with three filings: the electric bus make ready infrastructure pilot, Charge Ready Hawaii commercial infrastructure pilot, and two commercial EV rates, EV-J and EV-P. The electric bus make ready infrastructure pilot, EV-J and EV-P, and Charge Ready Hawaii commercial infrastructure pilot were approved by the PUC on May 7, 2021, December 30, 2021 and January 24, 2022, respectively, and launched in the first and fourth quarters of 2022. In August 2020, the Utilities committed to electrifying 100% of its class 1 vehicles (sedans, SUVs and light trucks) by 2035. The Utilities launched the Smart Charge Hawaii Telematics pilot in May 2023 and are currently acquiring participants and collecting data. The Utilities operate 32 public DC fast chargers (DCFC) as part of the EV-U pilot and EV-MAUI tariff. They filed a request in the fourth quarter of 2021 to expand and make permanent the public charging pilot with an additional 150 DCFCs and 150 level 2 charging stations at 75 locations. In December 2023, the Utilities filed their supplemental reply statement of position and the request is ready for decision making. On January 11, 2024, the Federal Highways Administration announced that Hawaii was not awarded grants for the fiscal year 2022-2023 Charging and Fueling Infrastructure Program funds, which the Utilities applied for in partnership with Hawaii Department of Transportation.

Renewable Portfolio Standards. In 2015, Hawaii's RPS law was amended to require electric utilities to meet an RPS of 15%, 30%, 40%, 70% and 100% by December 31, 2015, 2020, 2030, 2040 and 2045, respectively. Energy savings resulting from energy efficiency programs do not count toward the RPS since 2014 (only electrical generation using renewable energy as a source counts). In July 2022, Governor Ige signed Act 240 (H.B.2089), that amended the RPS calculation from renewable energy as a percentage of sales to renewable energy as a percentage of total generation. The amended RPS calculation results in a lower calculated percentage than the amount calculated under the previous methodology. For example, the 2022 RPS achieved under the revised RPS calculation would have been 39.1% under the prior method versus 31.8% under the revised method. The change in the definition is to be applied prospectively to future milestone measurements and will require that the Utilities acquire more renewable energy than under the previous RPS calculation to comply with the RPS milestones; however, the Utilities expect to continue to meet the RPS milestones under the amended RPS law to exceed the 2030 RPS requirement of 40%. The ability of the Utilities to meet RPS milestones after 2030 may be impacted by the Utilities' current credit ratings. In 2023, the Utilities' RPS was 33.3%.

Affiliate transactions. Certain transactions between HEI's electric public utility subsidiaries (Hawaiian Electric, Hawaii Electric Light and Maui Electric) and HEI and affiliated interests (as defined by statute) are subject to regulation by the PUC.

In December 1996, the PUC issued an order in a docket to review the relationship between HEI and Hawaiian Electric and the effects of that relationship on the operations of Hawaiian Electric. The order required Hawaiian Electric to continue to provide the PUC with periodic status reports on its compliance with the PUC Agreement (pursuant to which HEI became the holding company of Hawaiian Electric). Hawaiian Electric files such status reports annually. In the order, the PUC also required the Utilities to present a comprehensive analysis of the impact that the holding company structure and investments in nonutility subsidiaries have on a case-by-case basis on the cost of capital to each utility in future rate cases and remove any such effects from the cost of capital. The Utilities have made presentations in their subsequent rate cases to support their positions that there was no evidence that would modify the PUC's finding that Hawaiian Electric's access to capital did not suffer as a result of HEI's involvement in nonutility activities and that HEI's diversification did not permanently raise or lower the cost of capital incorporated into the rates paid by Hawaiian Electric's utility customers.

In December 2018, the PUC established a set of requirements governing transactions and sharing of information between the Utilities and its affiliates (Affiliate Transaction Requirements, ATRs), which was subsequently modified and clarified in January 2019 following the Utilities' motion for reconsideration. The PUC stated the intent of the ATRs is to establish safeguards to avoid potential market power benefits and cross-subsidization between regulated and unregulated activities. The requirements include rules on interactions with affiliates, information handling, business development, political activities, promotional activities, sales of products and services, and employee sharing restrictions. The ATRs include implementing an internal code of conduct, a compliance plan, including policies and procedures to comply with the requirements, and having an audit conducted every three years that examines the compliance with the requirements. Penalties for non-compliance depend on the severity of the violation, and can range from daily fines to divestiture of the Utilities by the holding company. On January 26, 2023, the PUC approved the Utilities' internal code of conduct. The PUC also directed the Utilities to make language changes to parts of the Utilities' 2023 Compliance Plan. On May 24, 2023, the Utilities filed a brief with the PUC discussing the definition of "Affiliate" as used in the 2023 Affiliate Transaction Requirements Compliance Plan, as ordered by the PUC.

Other regulations. The Utilities are not subject to regulation by the FERC under the Federal Power Act, except under Sections 210 through 212 (added by Title II of PURPA and amended by the Energy Policy Act of 1992), which permit the FERC to order electric utilities to interconnect with qualifying cogenerators and small power producers, and to wheel power to other electric utilities. Title I of PURPA, which relates to retail regulatory policies for electric utilities, and Title VII of the Energy Policy Act of 1992, which addresses transmission access, also apply to the Utilities. The Utilities are also required to file various operational reports with the FERC.

Because they are located in the State of Hawaii, Hawaiian Electric and its subsidiaries are exempt by statute from limitations set forth in the Powerplant and Industrial Fuel Use Act of 1978 on the use of petroleum as a primary energy source.

Regulatory Developments. See "Regulatory proceedings" in Note 4 of the Consolidated Financial Statements for additional discussions.

See also "HEI–Regulation" above.

Environmental regulation. Hawaiian Electric, Hawaii Electric Light and Maui Electric, like other utilities, are subject to periodic inspections by federal, state and, in some cases, local environmental regulatory agencies, including agencies responsible for the regulation of water quality, air quality, hazardous and other waste and hazardous materials. These inspections may result in the identification of items needing corrective or other action. Except as otherwise disclosed in this report (see “Risk Factors” in Item 1A, and Notes 1 and 4 of the Consolidated Financial Statements), the Utilities believe that each subsidiary has appropriately responded to environmental conditions requiring action and that, as a result of such actions, such environmental conditions will not have a material adverse effect on the capital expenditures, earnings and competitive position of the Utilities.

Water quality controls. The generating stations, substations and other utility facilities operate under federal and state water quality regulations and permits, including, but not limited to, the Clean Water Act National Pollution Discharge Elimination System (governing point source discharges, including wastewater and storm water discharges) and the Safe Drinking Water Act Underground Injection Control (regulating disposal of wastewater into the subsurface).

Oil pollution controls. The Oil Pollution Act of 1990 (OPA) establishes programs that govern actual or threatened oil releases and imposes strict liability on responsible parties for clean-up costs and damages to natural resources and property. The federal Environmental Protection Agency (EPA) regulations under OPA require certain facilities that use or store oil to prepare and implement Spill Prevention, Control and Countermeasures (SPCC) Plans in order to prevent releases of oil to navigable waters of the U.S. Certain facilities are also required to prepare and implement Facility Response Plans (FRPs) to ensure prompt and proper response to releases of oil. The utility facilities that are subject to SPCC Plan and FRP requirements have prepared and implemented SPCC Plans and FRPs.

Air quality controls. The Clean Air Act (CAA) establishes permitting programs to reduce air pollution. The CAA amendments of 1990, established the federal Title V Operating Permit Program (in Hawaii known as the Covered Source Permit program) to ensure compliance with all applicable federal and state air pollution control requirements. The 1977 CAA Amendments established the New Source Review (NSR) permitting program, which affect new or modified generating units by requiring a permit to construct under the CAA and the controls necessary to meet the National Ambient Air Quality Standards.

Title V operating permits have been issued for all of the Utilities’ affected generating units.

Hazardous waste and toxic substances controls. The operations of the electric utility are subject to EPA regulations that implement provisions of the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, also known as Superfund), the Superfund Amendments and Reauthorization Act (SARA), and the Toxic Substances Control Act (TSCA).

RCRA underground storage tank (UST) regulations require all facilities that use USTs for storing petroleum products to comply with established leak detection, spill prevention, standards for tank design and retrofits, financial assurance, operator training, and tank decommissioning and closure requirements. All of the Utilities’ USTs currently meet the applicable requirements.

The Emergency Planning and Community Right-to-Know Act under SARA Title III requires the Utilities to report potentially hazardous chemicals present in their facilities in order to provide the public with information so that emergency procedures can be established to protect the public in the event of hazardous chemical releases. Since January 1, 1998, the steam electric industry category has been subject to Toxics Release Inventory (TRI) reporting requirements.

The TSCA regulations specify procedures for the handling and disposal of polychlorinated biphenyls (PCBs), a compound found in some transformer and capacitor dielectric fluids. The TSCA regulations also apply to responses to releases of PCBs to the environment. The Utilities have instituted procedures to monitor compliance with these regulations and have implemented a program to identify and replace PCB transformers and capacitors in their systems.

Hawaii’s Environmental Response Law (ERL), as amended, governs releases of hazardous substances, including oil, to the environment in areas within the state’s jurisdiction. Responsible parties under the ERL may be jointly, severally, and strictly liable for a release of a hazardous substance. Responsible parties include owners or operators of a facility where a hazardous substance is located and any person who at the time of disposal of the hazardous substance owned or operated any facility at which such hazardous substance was disposed.

The Utilities periodically discover leaking oil-containing equipment such as USTs, piping, and transformers. Each subsidiary reports releases from such equipment when and as required by applicable law and addresses the releases in compliance with applicable regulatory requirements.

Additional information. For additional information about Hawaiian Electric, see Hawaiian Electric’s MD&A, Hawaiian Electric’s “Quantitative and Qualitative Disclosures about Market Risk” and Hawaiian Electric’s Consolidated Financial Statements, including the Notes thereto.

Properties. As of December 31, 2023, the Utilities' ownership in generating assets was as follows:

Property	Location (island)	Principal Fuel Type	Generating Capacity (MW)	Status
Hawaiian Electric:				
Waiau[1]	Oahu	LSFO / Diesel	480.8	Active
Kahe[1]	Oahu	LSFO	620.5	Active
Campbell Industrial Park (CIP)[1]	Oahu	Diesel	129.0	Active
Honolulu Power Plant[1]	Oahu	N/A	—	Retired in 2023
Schofield Generating Station[2]	Oahu	Biodiesel / ULSD	49.4	Active
West Loch PV Project[3]	Oahu	Renewable (Solar)	20.0	Active
Hawaii Electric Light[4]:				
Shipman	Hawaii	N/A	—	Retired in 2015
Waimea	Hawaii	ULSD	7.5	Active
Keahole	Hawaii	Diesel / ULSD	77.6	Active
Puna	Hawaii	HSFO / Diesel	36.7	Active
Hill/Kanoelehua	Hawaii	HSFO / ULSD	55.4	Active
Distributed generators at substation sites	Hawaii	ULSD	5.0	Active
Maui Electric[5]:				
Kahului	Maui	HSFO	35.9	Active
Maalaea	Maui	Diesel / ULSD	208.4	Active
Miki Basin	Lanai	ULSD	9.4	Active
Palaau	Molokai	ULSD	12.0	Active
Distributed generators at substation sites	Maui	ULSD	3.8	Active

[1] The four plants are situated on Hawaiian Electric-owned land having a combined area of 542 acres.

[2] Hawaiian Electric has a 35-year land lease on 8.13 acres, effective September 1, 2016 (with an option to extend an additional 10 years), with the Department of the Army.

[3] Hawaiian Electric has a 37-year land lease on 102 acres, effective July 1, 2017, with the Secretary of the Navy.

[4] The plants are situated on Hawaii Electric Light-owned land having a combined area of approximately 44 acres. The distributed generators are located within Hawaii Electric Light-owned substation sites having a combined area of approximately four acres.

[5] The four plants are situated on Maui Electric-owned land having a combined area of 60.7 acres. The distributed generators are located within Maui Electric-owned substation sites having a combined area of approximately three acres.

As of December 31, 2023, the Utilities' ownership in fuel storage facilities was as follows:

Facility	Location (island)	Fuel Type	Capacity (barrels in thousands)	Generation Serviced
Hawaiian Electric:				
Barbers Point Tank Farm	Oahu	LSFO	1,000	Kahe, Waiau
Generation sites - various (in aggregate)	Oahu	LSFO	770	Various
Generation sites - various (in aggregate)	Oahu	Diesel	132	Various
Generation sites - various (in aggregate)	Oahu	Biodiesel	11	Various
Hawaii Electric Light[1]:				
Generation sites - various (in aggregate)	Hawaii	HSFO	48	Various
Generation sites - various (in aggregate)	Hawaii	Diesel	82	Various
Maui Electric[2]:				
Generation sites - various (in aggregate)	Maui	HSFO	81	Various
Generation sites - various (in aggregate)	Maui	Diesel	95	Various

[1] There are an additional 19,200 barrels of diesel and 24,770 barrels of HSFO storage capacity for Hawaii Electric Light-owned fuel off-site at Island Energy Services, LLC-owned terminalling facilities.

[2] There are an additional 56,358 barrels of diesel oil storage capacity off-site at Aloha Petroleum, Ltd-owned terminalling facilities.

Other properties. The Utilities own overhead transmission and distribution lines, underground cables, pole (some jointly) and metal high voltage towers. Electric lines are located over or under public and nonpublic properties.

Hawaiian Electric owns a total of 133 acres of land on which substations, transformer vaults, distribution baseyards and the Kalaeloa cogeneration facility are located. Hawaiian Electric also owns buildings and approximately 11.6 acres of land located in Honolulu, which house its operating and engineering departments. It also leases an office building and certain office spaces in Honolulu, land for office spaces and storage in Pearl City, and a warehousing center in Kapolei.

Hawaii Electric Light owns 6 acres of land in Kona, which is used for a baseyard, and one acre of land in Hilo, which houses its accounting, customer services and administrative offices. Hawaii Electric Light also leases 3.7 acres of land for its baseyard in Hilo under a lease expiring in 2030. In addition, Hawaii Electric Light owns a total of approximately 150 acres of land, and leases a total of approximately 6 acres of land, on which hydro facilities, substations and switching stations, microwave facilities and transmission lines are located. The deeds to the sites located in Hilo contain certain restrictions, but the restrictions do not materially interfere with the use of the sites for public utility purposes.

Maui Electric's administrative offices, as well as its engineering and distribution departments, are situated on 9.1 acres of Maui Electric-owned land in Kahului. Maui Electric also owns approximately 20 acres of land which house some of its substations, leases approximately 3,600 square feet of land for its telecommunication and microwave facilities, leases approximately 6,000 square feet of land at Kahului Harbor for pipeline purposes, and leases 17,958 square feet of land at Puunene for the Puunene Substation. Maui Electric also owns approximately 87 acres of undeveloped land at Waena, Palaau, and Kahului. Fuel storage facilities are located on Maui Electric-owned properties at Kahului Baseyard, Kahului Power Plant, Maalaea Power Plant, Miki Basin, Palaau, Hana, and the Kuihelani Substation. Two, 1-MW stand-by diesel generators are located within the Maui Electric-owned land at Hana Substation. One, 1.83-MW stand-by diesel generator is located within the Maui Electric-owned land at Kuihelani Substation.

See "Hawaiian Electric and subsidiaries and service areas" above for a discussion of the nonexclusive franchises of Hawaiian Electric and subsidiaries.

See "Generation statistics" above for a further discussion of some of the electric utility properties.

Bank

General. ASB is one of the largest financial institutions headquartered in the State of Hawaii with assets of $9.7 billion and deposits of $8.1 billion, as of December 31, 2023. ASB is a full-service community bank that serves both consumer and commercial customers and operates 35 branches on the islands of Oahu (25), Maui (4), Hawaii (3), Kauai (2), and Molokai (1) as of December 31, 2023.

In 2023, ASB's revenues and net income amounted to approximately 11% and 27% of HEI's consolidated revenues and net income, respectively, compared to approximately 9% and 33% in 2022 and approximately 11% and 41% in 2021.

At the time of HEI's acquisition of ASB, HEI agreed with the Office of Thrift Supervision (OTS), Department of Treasury's predecessor regulatory agency, that ASB's regulatory capital would be maintained at a level of at least 6% of ASB's total liabilities, or at such greater amount as may be required from time to time by regulation. Under the agreement, HEI's obligation to contribute additional capital to ensure that ASB would have the capital level required by the OTS was limited to a maximum aggregate amount of approximately $65.1 million. As of December 31, 2023, as a result of certain HEI contributions of capital to ASB over the years, HEI's maximum obligation under the agreement to contribute additional capital has been reduced to approximately $28.3 million. ASB is subject to OCC regulations on dividends and other distributions and ASB must receive a letter from the FRB communicating the OCC's and FRB's non-objection to the payment of any dividend ASB proposes to declare and pay to ASB Hawaii and HEI. In addition to OCC oversight, federal law and Federal Reserve Board policy require that HEI, as a savings and loan holding company, serve as a source of financial and managerial strength for any FDIC-insured depository institution that it controls. Accordingly, if ASB were to be in financial distress or to otherwise be viewed by the regulators as in unsatisfactory condition, HEI could be required to provide additional capital or liquidity support or take other action, in support of ASB.

Lending activities. See Note 5 of the Consolidated Financial Statements for the composition of ASB's loan portfolio.

Origination, purchase and sale of loans. Generally, residential and commercial real estate loans originated by ASB are collateralized by real estate located in Hawaii. For additional information, including information concerning the geographic distribution of ASB's mortgage-backed securities portfolio and the geographic concentration of credit risk, see Note 16 of the Consolidated Financial Statements. The demand for loans is primarily dependent on the Hawaii real estate market, business conditions, interest rates and loan refinancing activity.

Residential mortgage lending. ASB originates fixed rate and adjustable rate loans secured by single family residential property, including investor-owned properties, with maturities of up to 30 years. ASB's general policy is to require private mortgage insurance when the loan-to-value ratio of the property exceeds 80% of the lower of the appraised value or purchase price at origination.

Construction and development lending. ASB provides fixed rate loans for the construction of one-to-four unit residential and commercial properties. Construction loan projects are typically short term in nature. Construction and development financing generally involves a higher degree of credit risk than long-term financing on improved, occupied real estate. Accordingly, construction and development loans are generally priced higher than loans collateralized by completed structures. ASB's underwriting, monitoring and disbursement practices with respect to construction and development financing are designed to ensure sufficient funds are available to complete construction projects. See "Bank—Loan portfolio risk elements" in HEI's MD&A and "Multifamily residential and commercial real estate lending" below.

Multifamily residential and commercial real estate lending. ASB provides permanent financing and construction and development financing collateralized by multifamily residential properties (including apartment buildings) and collateralized by commercial and industrial properties (including office buildings, shopping centers and warehouses) for its own portfolio as well as for participation with other lenders. Commercial real estate lending typically involves long lead times to originate and fund. As a result, production results can vary significantly from period to period.

Consumer lending. ASB offers a variety of secured and unsecured consumer loans. Loans collateralized by deposits are limited to 90% of the available account balance. ASB offers home equity lines of credit, clean energy loans, secured and unsecured VISA cards (through a third party issuer), checking account overdraft protection and other general purpose consumer loans.

Commercial lending. ASB provides both secured and unsecured commercial loans to business entities. This lending activity is designed to diversify ASB's asset structure, shorten maturities, improve rate sensitivity of the loan portfolio and attract commercial checking deposits. ASB offers commercial loans with terms generally up to ten years.

Loan origination fee and servicing income. In addition to interest earned on residential mortgage loans, ASB receives income from servicing loans, for late payments and from other related services. Servicing fees are received on loans originated and subsequently sold by ASB where ASB acts as collection agent on behalf of third-party purchasers.

ASB charges the borrower at loan settlement a loan origination fee. See "Loans" in Note 1 of the Consolidated Financial Statements.

Deposits and sources of funds. Deposits continue to be the largest source of funds for ASB for use in lending, meeting liquidity requirements and making investments, and are affected by market interest rates, competition and management's responses to these factors In 2023, with the rising interest rate environment and inflationary pressures in the economy, core deposit outflow continued and was replaced by higher costing term certificates and other borrowings. Retention of low-cost deposits will be challenging in the current environment. ASB borrows on a short-term basis to compensate for seasonal or other reductions in deposit flows. ASB may borrow on a longer-term basis to support expanded lending or investment activities. Advances from the Federal Home Loan Bank (FHLB) of Des Moines, borrowings from the Federal Reserve Bank and securities sold under agreements to repurchase continue to be additional sources of funds, but they are a higher cost funding source than deposits.

Competition. The banking industry in Hawaii is highly competitive. At December 31, 2023, there were 7 financial institutions insured by the FDIC headquartered in the State of Hawaii. While ASB is one of the largest financial institutions in Hawaii, based on total assets, ASB faces vigorous competition for deposits and loans from two larger banking institutions based in Hawaii and from smaller institutions that heavily promote their services in niche areas, such as providing financial services to small and medium-sized businesses, as well as national financial services organizations. Competition for loans and deposits comes primarily from other savings institutions, commercial banks, credit unions, securities brokerage firms, money market and mutual funds and other investment alternatives. ASB faces additional competition in seeking deposit funds from various types of corporate and government borrowers, including insurance companies. Competition for origination of mortgage loans comes primarily from mortgage banking and brokerage firms, commercial banks, other savings institutions, insurance companies and real estate investment trusts. These entities may have a physical presence in the State of Hawaii or operate from out of state and provide online services. See also "Bank—Executive overview and strategy" in HEI's MD&A.

To remain competitive and continue building core franchise value, ASB continues to develop and introduce new products and services to meet the needs of its consumer and commercial customers. Additionally, the banking industry is constantly changing and ASB is making the investment in its people and technology necessary to adapt and remain competitive.

The primary factors in ASB's competition for mortgage and other loans are the competitive interest rates and loan origination fees it charges, the wide variety of loan programs it offers and the quality and efficiency of the services it provides to borrowers and the business community. ASB believes that it is able to compete for such loans primarily through the competitive interest rates and loan fees it charges, the type of mortgage loan programs it offers and the efficiency and quality of the services it provides to individual borrowers and the business community.

The primary factors in competing for deposits are interest rates, the quality and range of services offered, marketing, convenience of locations, hours of operation, availability and functionality of other non-branch channels such as online and mobile banking and perceptions of the institution's financial soundness and safety. To compete effectively, ASB offers a variety of savings and checking accounts at competitive rates, convenient business hours, convenient branch locations with interbranch deposit and withdrawal privileges at each branch, convenient automated teller machines and other banking options including online and mobile banking platforms. ASB also conducts advertising and promotional campaigns.

ASB has been diversifying its loan portfolio from single-family home mortgages to higher-spread, shorter-duration consumer, commercial and commercial real estate loans. The origination of consumer, commercial and commercial real estate loans involves risks and other considerations different from those associated with originating residential real estate loans. For example, the sources and level of competition may be different and credit risk is generally higher than for residential mortgage loans. These different risk factors are considered in the underwriting and pricing standards and in the allowance for credit losses established by ASB for its consumer, commercial and commercial real estate loans.

Regulation. ASB, a federally chartered saving bank, is subject to examination and comprehensive regulation by the Department of Treasury, OCC and the FDIC, and is subject to reserve requirements established by the Board of Governors of the Federal Reserve System. Regulation by these agencies focuses in large measure on the adequacy of ASB's capital and the results of periodic "safety and soundness" examinations conducted by the OCC. In addition, ASB's holding companies are subject to the regulatory supervision of the FRB. See "HEI Consolidated–Regulation" above.

See "Bank—Legislation and regulation" in HEI's MD&A for the final capital rules under the Basel III regulatory capital framework.

Examinations. ASB is subject to periodic "safety and soundness" examinations and other examinations by the OCC. In conducting its examinations, the OCC utilizes the Uniform Financial Institutions Rating System adopted by the Federal Financial Institutions Examination Council, which system utilizes the "CAMELS" criteria for rating financial institutions. The six components in the rating system are: Capital adequacy, Asset quality, Management, Earnings, Liquidity and Sensitivity to market risk. The OCC examines and rates each CAMELS component. An overall CAMELS rating is also given, after taking into account all of the component ratings. A financial institution may be subject to formal regulatory or administrative direction or supervision such as a "memorandum of understanding" or a "cease and desist" order following an examination if its CAMELS rating is not satisfactory. An institution is prohibited from disclosing the OCC's report of its safety and soundness examination or the component and overall CAMELS rating to any person or organization not officially connected with the institution as an officer, director, employee, attorney or auditor, except as provided by regulation. The OCC also regularly examines ASB's information technology practices and its performance under Community Reinvestment Act measurement criteria.

The Federal Deposit Insurance Act, as amended, addresses the safety and soundness of the deposit insurance system, supervision of depository institutions and improvement of accounting standards. Pursuant to this Act, federal banking agencies have promulgated regulations that affect the operations of ASB and its holding companies (e.g., standards for safety and soundness, real estate lending, accounting and reporting, transactions with affiliates and loans to insiders).

Deposit insurance coverage. The Federal Deposit Insurance Act, as amended, and regulations promulgated by the FDIC, govern insurance coverage of deposit accounts. In July 2010, the Dodd-Frank Act permanently raised the current standard maximum deposit insurance amount to $250,000. Generally, the amount of all deposits held by a depositor in the same capacity (even if held in separate accounts) is aggregated for purposes of applying the insurance limit.

See "Federal Deposit Insurance Corporation assessment" in Note 5 of the Consolidated Financial Statements for a discussion of FDIC deposit insurance assessment rates.

Recent legislation and issuances. See "Bank–Legislation and regulation" in HEI's MD&A.

Affiliate transactions. Significant restrictions apply to certain transactions between ASB and its affiliates, including HEI and its direct and indirect subsidiaries. For example, ASB is prohibited from making any loan or other extension of credit to an entity affiliated with ASB unless the affiliate is engaged exclusively in activities which the FRB has determined to be permissible for bank holding companies. There are also various other restrictions which apply to certain transactions between ASB and certain executive officers, directors and insiders of ASB. ASB is also barred from making a purchase of or any investment in securities issued by an affiliate, other than with respect to shares of a subsidiary of ASB.

Financial derivatives and interest rate risk. ASB is subject to OCC rules relating to derivatives activities, such as interest rate swaps, interest rate lock commitments and forward commitments. See "Derivative financial instruments" in Note 5 of the Consolidated Financial Statements for a description of interest rate lock commitments and forward commitments used by ASB. Currently ASB does not use interest rate swaps to manage interest rate risk, but may do so in the future. Generally speaking, the

OCC rules permit financial institutions to engage in transactions involving financial derivatives to the extent these transactions are otherwise authorized under applicable law and are safe and sound. The rules require ASB to have certain internal procedures for handling financial derivative transactions, including involvement of the ASB Board of Directors.

Management believes ASB's interest rate risk processes are aligned with the Interagency Advisory on Interest Rate Risk Management and appropriate with earnings and capital levels, balance sheet complexity, business model and risk tolerance.

Liquidity. OCC regulations require ASB to maintain sufficient liquidity to ensure safe and sound operations. ASB's principal sources of liquidity are customer deposits, borrowings, the maturity and repayment of portfolio loans and securities and the sale of loans into secondary market channels. ASB's principal sources of borrowings are advances from the FHLB of Des Moines and securities sold under agreements to repurchase from broker/dealers. ASB is approved by the FHLB of Des Moines to borrow an amount of up to 45% of assets to the extent it provides qualifying collateral and holds sufficient FHLB of Des Moines stock. As of December 31, 2023, ASB's unused FHLB of Des Moines borrowing capacity was approximately $1.9 billion. ASB utilizes growth in deposits, advances from the FHLB of Des Moines, borrowings from Federal Reserve Bank and securities sold under agreements to repurchase to fund maturing and withdrawable deposits, repay maturing borrowings, fund existing and future loans and make investments. As of December 31, 2023, ASB had loan commitments, undisbursed loan funds and unused lines and letters of credit of $1.8 billion. Management believes ASB's current sources of funds will enable it to meet these obligations while maintaining liquidity at satisfactory levels.

Supervision. The Federal Deposit Insurance Corporation Improvement Act of 1991 establishes a statutory framework that is triggered by the capital level of a financial institution and subjects it to progressively more stringent restrictions and supervision as capital levels decline. The prompt corrective action capital requirements establish thresholds for varying degrees of oversight and intervention by regulators. Declines in levels of capital, depending on their severity, will result in increasingly stringent mandatory and discretionary regulatory consequences. Capital levels may decline for any number of reasons, including reductions that would result if there were losses from operations, deterioration in collateral values or the inability to dispose of real estate owned (typically acquired by foreclosure). The regulators have substantial discretion in the corrective actions they might direct and could include restrictions on dividends and other distributions that ASB may make to HEI (through ASB Hawaii) and the requirement that ASB develop and implement a plan to restore its capital. The OCC rules implement the system of prompt corrective action. In particular, the rules define the relevant capital measures for the categories of "well capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized" and "critically undercapitalized." As of December 31, 2023, ASB was "well-capitalized."

Interest rates. FDIC regulations restrict the ability of financial institutions that are undercapitalized to offer interest rates on deposits that are significantly higher than the rates offered by competing institutions. As of December 31, 2023, ASB was "well capitalized" and thus not subject to these interest rate restrictions.

Qualified thrift lender test. ASB is a "qualified thrift lender" (QTL) under its federal thrift charter and, in order to maintain this status, ASB is required to maintain at least 65% of its assets in "qualified thrift investments," measured on a monthly average basis in 9 out of the previous 12 months, which include housing-related loans (including mortgage-backed securities) as well as certain small business loans, education loans, loans made through credit card accounts and a basket (not exceeding 20% of total assets) of other consumer loans and other assets. Institutions that fail to maintain QTL status are subject to various penalties, including limitations on their activities. In ASB's case, the activities of HEI, ASB Hawaii and HEI's other subsidiaries would also be subject to restrictions if ASB failed to maintain its QTL status, and a failure or inability to comply with those restrictions could effectively result in the required divestiture of ASB. As of December 31, 2023, and at all times during 2023, ASB was a qualified thrift lender.

Federal Home Loan Bank System. ASB is a member of the FHLB System, which consists of 11 regional FHLBs, and ASB's regional bank is the FHLB of Des Moines. The FHLB System provides a central credit facility for member institutions. Historically, the FHLBs have served as the central liquidity facilities for savings associations and sources of long-term funds for financing housing. At such time as an advance is made to ASB or renewed, it must be collateralized by collateral from one of the following categories: (1) fully disbursed, whole first mortgages on improved residential property, or securities representing a whole interest in such mortgages; (2) securities issued, insured or guaranteed by the U.S. Government or any agency thereof; (3) FHLB deposits; and (4) other real estate-related collateral that has a readily ascertainable value and with respect to which a security interest can be perfected. The aggregate amount of outstanding advances collateralized by such other real estate-related collateral may not exceed 300% of ASB's capital.

ASB's required holding in the stock of the FHLB is both membership and activity-based. Membership is based on a percentage of total assets (0.06%) while the portion related to activity is based on a percentage of outstanding activity, mainly advances (4.5%). As of December 31, 2023, ASB was required and owned capital stock in the FHLB of Des Moines in the amount of $14.7 million.

Community Reinvestment. The Community Reinvestment Act (CRA) requires financial institutions to help meet the credit needs of their communities, including low- and moderate-income areas, consistent with safe and sound lending practices. The OCC will consider ASB's CRA record in evaluating an application for a new deposit facility, including the establishment of a branch, the relocation of a branch or office, or the acquisition of an interest in another bank. ASB currently holds a "satisfactory" CRA rating.

Secured Overnight Financing Rate (SOFR) Rules. The Federal Reserve Board announced the adoption of a final rule that implements the Adjustable Interest Rate (LIBOR) Act by identifying benchmark rates based on SOFR that replaced LIBOR in certain financial contracts after June 30, 2023. SOFR is a broad measure of the cost of borrowing cash overnight collateralized by U. S. Treasury securities. The Federal Reserve Bank of New York, in cooperation with the U.S. Department of the Treasury's Office of Financial Research, publishes SOFR daily. In particular, some residential mortgage promissory notes held by ASB are based on LIBOR but do not identify a specific replacement index. The Adjustable Interest Rate (LIBOR) Act addresses the issue by specifying a specific SOFR rate that replaces certain LIBOR rates. ASB implemented SOFR successfully.

Other laws. ASB is subject to federal and state consumer protection laws which affect deposit and lending activities, such as the Truth in Lending Act, the Truth in Savings Act, the Equal Credit Opportunity Act, the Real Estate Settlement Procedures Act, the Home Mortgage Disclosure Act and several federal and state financial privacy acts intended to protect consumers' personal information and prevent identity theft, such as the Gramm Act and the Fair and Accurate Transactions Act. ASB is also subject to federal laws regulating certain of its lending practices, such as the Flood Disaster Protection Act, and laws requiring reports to regulators of certain customer transactions, such as the Currency and Foreign Transactions Reporting Act and the International Money Laundering Abatement and Anti-Terrorist Financing Act. ASB's relationship with Cetera Investment Services LLC and Cetera Investment Advisers LLC is also governed by regulations adopted by the FRB under the Gramm Act, which regulate "networking" relationships under which a financial institution refers customers to a broker-dealer for securities services and employees of the financial institution are permitted to receive a nominal fee for the referrals. These laws may provide for substantial penalties in the event of noncompliance.

Proposed legislation. See the discussion of proposed legislation in "Bank–Legislation and regulation" in HEI's MD&A.

Environmental regulation. ASB may be subject to the provisions of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), ERL and regulations promulgated thereunder, which impose liability for environmental cleanup costs on certain categories of responsible parties. CERCLA and ERL exempt persons whose ownership in a facility is held primarily to protect a security interest, provided that they do not participate in the management of the facility.

Additional information. For additional information about ASB, see the sections under "Bank" in HEI's MD&A, HEI's "Quantitative and Qualitative Disclosures about Market Risk" and HEI's Consolidated Financial Statements, including Note 5 thereto.

Properties. ASB owns or leases several office buildings in Honolulu and owns land on which a number of its branches are located.

The following table sets forth the number of bank branches owned and leased by ASB by island:

	Number of branches		
December 31, 2023	**Owned**	**Leased**	**Total**
Oahu	8	17	25
Maui	1	3	4
Hawaii	2	1	3
Kauai	1	1	2
Molokai	—	1	1
	12	23	35

As of December 31, 2023, the net book value (NBV) of branches and office facilities was $168 million ($163 million represents the NBV of the land and improvements for the branches and office facilities owned by ASB and $5 million represents the NBV of ASB's leasehold improvements). As of December 31, 2022, the NBV of branches and office facilities was $171 million ($165 million represents the NBV of the land and improvements for the branches and office facilities owned by ASB and $6 million represents the NBV of ASB's leasehold improvements). The leases expire on various dates through December 2040, but many of the leases have extension provisions.

As of December 31, 2023, ASB owned 117 automated teller machines.

ITEM 1A. RISK FACTORS

The businesses of HEI and its subsidiaries involve numerous risks which, if realized, could have a material and adverse effect on the Company's financial statements. For additional information for certain risk factors enumerated below and other risks of the Company and its operations, see "Cautionary Note Regarding Forward-Looking Statements" above and HEI's MD&A, HEI's "Quantitative and Qualitative Disclosures about Market Risk," the Notes to the Consolidated Financial Statements, Hawaiian Electric's MD&A and Hawaiian Electric's "Quantitative and Qualitative Disclosures About Market Risk."

Holding company and company-wide risks.

Potential losses resulting from the Maui windstorm and wildfires could have a material adverse effect on HEI's and Hawaiian Electric's financial condition, liquidity, cash flows and results of operations. On August 8, 2023, a number of brush fires in the West Maui (Lahaina) and Upcountry Maui areas caused widespread property damage, including damage to property of the Utilities, and 101 confirmed fatalities in Lahaina at this time (the Maui windstorm and wildfires). The Maui windstorm and wildfires were fueled by extreme winds and drought-like conditions in those parts of Maui. According to the Maui Police Department's Preliminary After-Action Report, in addition to the loss of life, over 3,450 acres burned and over 3,000 structures were destroyed in those areas. In Lahaina, a fire was reported at about 6:30 a.m. (the "Morning Fire") and appears to have been caused by power lines that fell in high winds and spread into a field near Lahaina Intermediate School. The Maui Fire Department responded promptly to the Morning Fire, and according to the Fire Department's public statement that morning, by 9 a.m. the Morning Fire was "100% contained." The Maui fire chief subsequently reported that the Fire Department had determined that the Morning Fire was "extinguished" and left the scene. Shortly before 3 p.m. that day, while the power remained off, Utility crew members saw a small fire in the same field about 75 yards away from Lahainaluna Road. They immediately called 911 and reported the fire (the "Afternoon Fire"). At the time of the Afternoon Fire, the Company's power lines in the area where that fire ignited were not energized and had not been energized for more than six hours. By the time the Maui Fire Department arrived back on the scene, it was not able to contain the Afternoon Fire and it spread out of control toward Lahaina. No determination as to the cause of the Afternoon Fire has been made. The Company believes that most of the property damage and all of the fatalities are from the Afternoon Fire.

Multiple lawsuits have been filed against the Utilities and HEI alleging, among other things, that they were negligent in failing to prevent the wildfires that led to the property destruction and loss of life. If the Utilities and HEI are held responsible for damages caused by the Maui windstorm and wildfires, it could have a material impact on HEI's and Hawaiian Electric's financial condition, liquidity, cash flows and results of operations. The Company has $165 million in insurance coverage for third party claims, but the aggregate losses associated with the Maui windstorm and wildfires could significantly exceed that amount. Also, the Company is incurring legal and consulting fees to manage the lawsuits and financial implications related to the Maui windstorm and wildfires, and those amounts are likely to be material.

HEI's and Hawaiian Electric's access to capital markets and other sources of debt and equity financings in a timely manner and on acceptable terms will continue to be negatively impacted as a result of the downgrades in their debt credit ratings to below investment grade. In August 2023, HEI and Hawaiian Electric received multiple downgrades to their debt, including to ratings below investment grade, by Fitch, Moody's and S&P. Unless and until these debt ratings are upgraded to investment grade, the Company will continue to have restricted access to capital markets and other sources of debt and equity financings, if at all, in a timely manner and on acceptable terms. Accordingly, the Company's financial condition, liquidity, cash flows and results of operations may be adversely impacted if debt credit ratings are maintained at below investment grade for an extended period of time.

Extreme weather events and other natural disasters, particularly those exacerbated by climate change such as the Maui windstorm and wildfires, could materially affect Hawaiian Electric's assets, particularly if they fail or are found to have contributed to a wildfire. Extreme weather-related incidents and other natural disasters, including volcanic eruptions, mudslides, hurricanes, tsunamis and other storms, can interfere with the generation and transmission of electricity, and can seriously damage the infrastructure necessary to deliver electricity to customers. These risks are increasing, as climate change has exacerbated some of the conditions that lead to these extreme weather events and natural disasters. Such an event can result in lost revenue and increased expenses for the Utilities, but it also can result in regulatory penalties and disallowances if Hawaiian Electric is unable to restore power on a timely basis. Also, an extreme event can lead to significant claims for damages, including for loss of life and property, and has been the case with the Maui windstorm and wildfires. Therefore, these events could materially affect the Company's business, reputation, financial condition and results of operations.

Holding Company Risk—HEI is a holding company that derives its income from its operating subsidiaries and depends on the ability of those subsidiaries to pay dividends or make other distributions to HEI and on its own ability to raise capital. HEI is a legal entity separate and distinct from its various subsidiaries. As a holding company with no significant operations of its own, HEI's cash flows and consequent ability to service its obligations and pay dividends on its common stock is dependent upon its receipt of dividends or other distributions from its operating subsidiaries and its ability to issue common stock or other equity securities and to incur additional debt. A material reduction or delay in dividends or other distributions by one or both of Hawaiian Electric and ASB for an extended period of time, such as a continuation or expansion of the reduction in dividends that HEI currently is experiencing due to the Maui windstorm and wildfires, could have a material adverse effect on the Company's business, financial condition and results of operations. The ability of HEI's subsidiaries to pay dividends or make other distributions to HEI, in turn, is subject to the risks associated with their operations and to contractual and regulatory restrictions, including:

- the provisions of an HEI agreement with the PUC, which could limit the ability of HEI's principal electric public utility subsidiary, Hawaiian Electric, to pay dividends to HEI in the event that the consolidated common stock equity of the Utilities falls below 35% of total capitalization of the electric utilities;
- the provisions of an HEI agreement entered into with federal bank regulators in connection with its acquisition of its bank subsidiary, ASB, which requires HEI to contribute additional capital to ASB (up to a maximum amount of additional capital of $28.3 million as of December 31, 2023 under the Regulatory Capital Maintenance/Dividend Agreement dated May 26, 1988, between HEI, HEIDI (HEI Diversified Inc.) and the Federal Savings and Loan Insurance Corporation) upon request of the regulators in order to maintain ASB's regulatory capital at the level required by regulation;
- obligations under federal law and Federal Reserve Board policy, which require that a savings and loan holding company serve as a source of financial and managerial strength for any FDIC-insured depository institution that it controls, and accordingly, if ASB were to be in financial distress or to otherwise be viewed by the regulators as in unsatisfactory condition, HEI could be required to provide additional capital or liquidity support or take other action, in support of ASB. In addition, ASB may continue its suspension of its quarterly dividend to conserve cash to help ensure its maximum possible liquidity and capital position;
- the minimum capital and capital distribution regulations of the OCC that are applicable to ASB and capital regulations that become applicable to HEI and ASB Hawaii;
- the receipt of a letter from the FRB communicating the OCC's and the FRB's non-objection to the payment of any dividend ASB proposes to declare and pay to ASB Hawaii and HEI; and
- the provisions of preferred stock resolutions and debt instruments of HEI and its subsidiaries.

Credit and Capital Market Risk—The Company, and its lowered credit rating, is subject to risks associated with the Hawaii economy, including catastrophic events such as the Maui windstorm and wildfire (in the aggregate and on an individual island basis), volatile U.S. capital markets and changes in the interest rate and credit market environment that have or could result in higher retirement benefit plan funding requirements, declines in ASB's interest rate margins and investment values, higher delinquencies and charge-offs in ASB's loan portfolio and restrictions on the ability of HEI or its subsidiaries to borrow money or issue securities. The two largest components of Hawaii's economy are tourism and the federal government (including the military). Because the core businesses of HEI's subsidiaries are providing local public electric utility services (through Hawaiian Electric and its subsidiaries) and banking services (through ASB) in Hawaii, the Company's operating results are significantly influenced by: Hawaii's economy, which in turn is influenced by economic conditions in the mainland U.S. (particularly California) and Asia (particularly Japan) as a result of the impact of those conditions on tourism; by the impact of interest rates on the construction and real estate industries and by the impact of federal government spending in Hawaii, which can be affected by world conditions; and, from time to time, the expiration of federal government appropriations bills. In addition, the Hawaii economy could be directly or indirectly affected by implications and potential impacts of U.S. and foreign capital and credit market conditions and federal, state and international responses to those conditions and the potential impacts of global and local developments (including economic conditions and uncertainties; unrest, terrorist acts, wars (such as the Russia-Ukraine war and the Israel-Hamas war), conflicts, political protests, deadly virus epidemic, pandemics, or other crisis; the effects of changes that have or may occur in U.S. policy, such as with respect to immigration and trade).

HEI's and Hawaiian Electric's credit ratings only reflect the view, at the time the ratings are issued, of the applicable rating agency. There is no assurance that any such credit rating will remain in effect for any given period of time or that such rating will not be lowered, suspended or withdrawn entirely by the applicable rating agency if, in such rating agency's judgment, circumstances, such as current, past or future effects or events so warrant. Any such lowering, suspension or withdrawal of any rating may have an adverse effect on the availability of capital to the Company or the market price or marketability of HEI's and/or Hawaiian Electric's securities, which could increase the cost of capital of HEI and Hawaiian Electric, and such increased costs, including interest charges, under HEI's and/or Hawaiian Electric's debt securities and credit facilities, would result in reductions in HEI's consolidated net income in future periods. Because HEI's and Hawaiian Electric's credit ratings were downgraded, HEI and Hawaiian Electric are unable to sell commercial paper and were required to draw on more expensive bank lines of credit and to defer capital or other expenditures. Neither HEI nor Hawaiian Electric management can predict the duration of the downgrades and future rating agency actions or their effects on the future cost of capital of HEI or Hawaiian Electric. Such ratings are not recommendations to buy, sell or hold any securities; such ratings may be subject to revision or withdrawal at any time by the rating agencies; and each rating should be evaluated independently of any other rating.

Changes in the U.S. capital markets can also have significant effects on the Company. For example, pension funding requirements are affected by the market performance of the assets in the master pension trust maintained for pension plans, and by the discount rate used to estimate the service and interest cost components of net periodic pension cost and value obligations. The Utilities' pension tracking mechanisms help moderate pension expense; however, a significant reduction in the discount rate or in the value of the Company's defined benefit pension plan assets could result in a substantial increase in the gap between the projected benefit obligations under the plans and the value of plan assets, resulting in increases in funding requirements.

Because the earnings of ASB depend primarily on net interest income, interest rate risk is a significant risk of ASB's operations. HEI and the Utilities are also exposed to interest rate risk primarily due to their periodic borrowing requirements, the discount rate used to determine pension funding requirements and the possible effect of interest rates on the electric utilities' rates of return. Interest rates are sensitive to many factors, including general economic conditions and the policies of government and regulatory authorities. HEI cannot predict future changes in interest rates, nor be certain that interest rate risk management strategies it or its subsidiaries have implemented will be successful in managing interest rate risk.

Interest rate risk also represents a market risk factor affecting the fair value of ASB's investment securities. Increases and decreases in prevailing interest rates generally translate into decreases and increases in the fair values of those instruments, respectively. Disruptions in the credit markets, a liquidity crisis in the banking industry or increased levels of residential mortgage delinquencies and defaults may result in decreases in the fair value of ASB's investment securities and an impairment, requiring ASB to write down its investment securities. As of December 31, 2023, ASB's investment in U.S. Treasury and federal agency obligations, and mortgage-backed securities have an implicit guarantee from the U.S. government. Decreases in the fair value of ASB's investment securities may also result in lower equity capital balances as unrealized losses in the available-for-sale investment securities portfolio are recorded as a decrease in equity capital through accumulated other comprehensive losses. The lower equity capital balance could result in a lower tangible equity capital ratio and restrict ASB's permissible activities if the tangible equity capital ratio falls below 2%. A negative tangible equity capital ratio would impact ASB's availability to borrow funds from the FHLB of Des Moines.

Geographic Concentration Risk—The Company is subject to the risks associated with the geographic concentration of its businesses and current lack of interconnections that could result in service interruptions at the Utilities or higher default rates on loans held by ASB. The business of the Utilities is concentrated on the individual islands they serve in the State of Hawaii. Their operations are more vulnerable to service interruptions than that of many U.S. mainland utilities because none of the systems of the Utilities are interconnected with the systems on the other islands they serve. Because of this lack of interconnections, it is necessary to maintain higher generation reserve margins than are typical for U.S. mainland utilities to help ensure reliable service. Service interruptions, including, in particular, extended interruptions that could result from a natural disaster or terrorist activity, could adversely impact the revenues and costs of some or all of the Utilities.

Substantially all of ASB's consumer loan customers are Hawaii residents. A significant portion of the commercial loan customers are also located in Hawaii. While a majority of customers are on Oahu, ASB also has customers on the neighbor islands (whose economies are smaller and less diverse than Oahu's economy). Substantially all of the real estate underlying ASB's residential and commercial real estate loans are located in Hawaii. These assets may be subject to a greater risk of default due to geographic concentration than other comparable assets held by financial institutions with more diverse geographic exposure in the event of adverse economic, political or business developments or natural disasters affecting Hawaii and affect the ability of ASB's customers to make payments of principal and interest on their loans.

Competitive and Technological Risk—Increasing competition and technological advances could cause HEI's businesses to lose customers or render their operations obsolete. The banking industry in Hawaii, and certain aspects of the electric utility industry, are competitive. The success of HEI's subsidiaries in meeting competition and responding to technological advances will continue to have a direct impact on HEI's consolidated financial performance. For example:

- ASB, one of the largest financial institutions in the state, is in direct competition for deposits and loans not only with two larger institutions that have substantial capital, technology and marketing resources, but also with smaller Hawaii institutions and other U.S. institutions, including credit unions, mutual funds, mortgage brokers, finance companies, non-traditional providers of financial services and investment banking firms. Larger financial institutions may have greater access to capital at lower costs, which could impair ASB's ability to compete effectively. New or significant advances in technology (e.g., significant advances in internet or mobile banking) or customer adoption of alternative banking channels could render the operations of ASB less competitive or obsolete.
- The Utilities face competition from IPPs; customer self-generation, with or without cogeneration; customer energy storage; and the potential formation of community-based, cooperative ownership or municipality structures for electrical service on all islands it serves. With the exception of certain identified projects, the Utilities are required to use competitive bidding to acquire a future generation resource unless the PUC finds competitive bidding to be unsuitable. The PUC sets policies for distributed generation interconnection agreements and standby rates. The results

of competitive bidding, competition from IPPs, customer self-generation, and potential cooperative ownership or municipality structures for electric utility service, and the rate at which technological developments facilitating nonutility generation of electricity, combined heat and power technology, off-grid microgrids, and customer energy storage may render the operations of the Utilities less competitive or outdated and adversely affect the Utilities and the results of their operations.

Cybersecurity Risk—The Company is subject to information technology and operational system failures, network disruptions, cyber attacks and breaches in data security that could materially and adversely affect its businesses and reputation. The Company and its subsidiaries rely on information technology systems, some of which are managed or hosted by third party service providers, to manage its business data, communications, and other business processes. Such information technology systems are vulnerable to cyberattacks or other security incidents, which could result in unauthorized access to confidential data, ransomware demands or disruptions to operations. In addition, there is increasing cybersecurity risk associated with the broad adoption of a remote working environment. If the Company is unable to prevent or adequately respond to and resolve an incident, it may have a material impact on the Company's business, financial condition, results of operations and reputation.

Utilities. The Utilities rely on evolving and complex operational and information systems, networks and other technologies, which are interconnected with the systems and network infrastructure owned by third parties to support a variety of business processes and activities, including procurement and supply chain, invoicing and collection of payments, customer relationship management, human resource management, the acquisition, generation and delivery of electrical service to customers, and to process financial information and results of operations for internal reporting purposes and to comply with regulatory financial reporting and legal and tax requirements. The Utilities use their systems and infrastructure to create, collect, store, and process sensitive information, including personal information regarding customers, employees and their dependents, retirees, and other individuals. Their systems are vulnerable to disability, failures or unauthorized access caused by natural disasters, cybersecurity incidents, security breaches, user error, unintentional defects created by system changes, military or terrorist actions, nation-state threat actors, criminal organizations, power or communication failures or similar events. Any such failure could have a material adverse impact on the Utilities' ability to process transactions and provide service, as well the Utilities' financial condition and results of operations. Further, a data breach involving theft, improper disclosure, or other unauthorized access to or acquisition of confidential information could subject the Utilities to penalties for violation of applicable privacy laws, claims by third parties, and enforcement actions by government agencies. A data breach could also reduce the value of proprietary information, and harm the reputation of the Utilities.

Private and public entities, such as the North American Electric Reliability Corporation, and the U.S. federal government, including the Departments of Defense, Homeland Security and Energy, and the White House, have noted that cyberattacks targeting utility systems are increasing in sophistication, magnitude, and frequency. The Utilities' systems have been, and will likely continue to be, a target of attacks. Further, the Utilities' operational networks may be subject to unforeseen operational/ cybersecurity risks due to the reliance on legacy operational components or modernizing and interconnecting existing infrastructure with new technologies and control systems, including those owned by third parties, such as independent power producers, distributed energy resource aggregators and customers. Although the Utilities have not experienced a material cybersecurity breach to date, such incidents may occur and may have a material adverse effect on the Utilities and the Company in the future. The Utilities continue to make investments in their cybersecurity program, including personnel, technologies, cyber insurance and training of Utilities personnel; however, there can be no assurance that these systems or their expected functionality will be implemented, maintained, or expanded effectively; nor can security measures completely eliminate the possibility of a cybersecurity breach. The Utilities maintain cyber liability insurance that covers certain damages caused by cyber incidents. However, there is no guarantee that adequate insurance will continue to be available at rates the Utilities believe are reasonable or that the costs of responding to and recovering from a cyber incident will be covered by insurance or recoverable in rates. If the Utilities' operational technologies or networks were to malfunction or fail or cybersecurity measures were to be breached, the Utilities could suffer financial loss, business disruptions, liability to customers, regulatory intervention or damage to their reputations.

Due to the size, scope and complexity of the Utilities' business, the development and maintenance of information technology systems to process and track information is critical and challenging. The Utilities often rely on third-party vendors to host, maintain, modify, and update its systems and these third-party vendors could cease to exist, fail to establish adequate processes to protect the Utilities systems and information, experience supply chain compromises or other internal or external security incidents. In addition, the Utilities are pursuing complex business transformation initiatives, which include the implementation of new systems and the upgrade or replacement of existing systems. Significant system changes increase the risk of system interruptions, which may occur. Further, delay or failure to complete the integration of information systems and processes may result in delays in regulatory cost recovery, or the failure to realize the benefits anticipated to be derived from these initiatives.

The Utilities' disaster recovery plans may not be successful in preventing the loss of customer data, service interruptions and disruptions to operations or damage to important facilities. If any of these systems fail to operate properly or become disabled and the Utilities' disaster recovery plans do not effectively resolve the issues in a timely manner, the Utilities could suffer financial loss, business disruptions, liability to customers, regulatory intervention or damage to their reputations, any of which could have a material adverse effect on the Utilities' and the Company's financial condition and results of operations.

ASB. ASB is highly dependent on its ability to process, on a daily basis, a large number of transactions and relies heavily on communication and information systems, including those of third-party vendors and other service providers. If any of these systems fail to operate properly or become disabled even for a brief period of time, ASB could suffer financial loss, business disruptions, liability to customers, regulatory intervention or damage to its reputation, any of which could have a material adverse effect on ASB's and the Company's financial condition and results of operations. Communication and information system failures can result from a variety of risks including, but not limited to, events that are wholly or partially out of ASB's control, such as communication line integrity, weather, terrorist acts, natural disasters, accidental disasters, unauthorized breaches of security systems, energy delivery systems, cyberattacks and other events.

ASB is under continuous threat of loss due to cyberattacks, especially as ASB continues to expand customer capabilities to utilize the Internet and other digital channels to transact business. Two of the most significant cyberattack risks that ASB faces are e-fraud and loss of sensitive customer data. Loss from e-fraud occurs when cybercriminals extract funds directly from ASB or its customers' accounts using fraudulent schemes that may include Internet-based funds transfers. ASB has been subject to e-fraud incidents historically. Loss of sensitive customer data are attempts to steal sensitive customer data, such as account numbers and social security numbers, through unauthorized access to computer systems, including computer hacking. Such attacks could present significant reputational, legal and regulatory costs if successful. Intrusion detection and prevention systems, anti-virus software, firewalls and other general information technology controls have been put in place to help detect and prevent cyberattacks or information system breaches. Disaster recovery and incident response plans have been developed to respond to unplanned incidents such as natural disasters, cyberattacks and other disruptive events. However there can be no assurance that failures, interruptions or security breaches will not occur or, if they do occur, that they will be adequately protected or recovered by ASB or its vendors.

Despite the security measures we have implemented, certain cyber incidents could materially disrupt operational systems; result in loss of trade secrets or other proprietary or competitively sensitive information; compromise personally identifiable information regarding customers or employees; delay our ability to deliver products to customers; and/or jeopardize the security of our facilities. Additionally unauthorized access to our computer systems or stored data could result in the theft, including cyber-theft, or improper disclosure of confidential information, and the deletion or modification of records could cause interruptions in our operations.

Further, a data breach involving theft, improper disclosure, or other unauthorized access to or acquisition of confidential information could subject the Bank to penalties for violation of applicable privacy laws, claims by third parties, and enforcement actions by government agencies. In addition, ASB's operational systems may be subject to new cybersecurity risks due to modernizing and interconnecting existing infrastructure with new technologies and control systems, including those owned by third parties. Although ASB has not experienced a material cybersecurity breach to date, such incidents may occur and may have a material adverse effect on the Bank should a material incident occur.

Uninsured Losses—HEI's businesses could suffer losses that are uninsured due to a lack of affordable insurance coverage, unavailability of insurance coverage or limitations on the insurance coverage the Company does have. In the ordinary course of business, HEI and its subsidiaries purchase insurance coverages (e.g., property and liability coverages) to protect against loss of, or damage to, their properties and against claims made by third parties and employees for property damage or personal injuries. However, the protection provided by such insurance is limited in significant respects and, in some instances, there is no coverage. Some of the insurance coverages have substantial deductibles or has limits on the maximum amounts that may be recovered. In common with other companies in its line of business, the Utilities' overhead and underground transmission and distribution systems (with the exception of substation buildings and contents), which have a replacement value roughly estimated at $12 billion, are largely not insured against loss or damage because the amount of transmission and distribution system insurance capacity is limited and the premiums are cost prohibitive. Similarly, the Utilities have no business interruption insurance as the premiums for such insurance would be cost prohibitive, particularly since the Utilities are not interconnected to other systems. If a hurricane or other uninsured catastrophic natural disaster were to occur, and if the PUC did not allow the affected Utilities to recover from ratepayers restoration costs and revenues lost from business interruption, the lost revenues and repair expenses could result in a significant decrease in HEI's consolidated net income or in significant net losses for the affected periods.

Related to damages and costs incurred as a result of the Maui windstorm and wildfires, the Company has property insurance with a total policy limit of $500 million, subject to a $1 million retention, for wildfire damages related to Utility-owned non-generating assets, including overhead transmission and distribution assets within 1,000 feet of such assets. The

Company also has $165 million of excess liability insurance, subject to a $0.3 million retention, for third party claims including claims related to wildfires, and $145 million directors and officers liability insurance, subject to a $1.0 million retention, to cover claims related to shareholder and derivative lawsuits. The aggregate damages and costs associated with the Maui windstorm and wildfires could significantly exceed the Company's policy limits.

ASB generally does not obtain credit enhancements, such as mortgagor bankruptcy insurance, but does require standard hazard and hurricane insurance and may require flood insurance for certain properties. ASB is subject to the risks of borrower defaults and bankruptcies, special hazard losses not covered by the required insurance and the insurance company's inability to pay claims on existing policies.

Environmental Regulation—Increased federal and state environmental regulation will require an increasing commitment of resources and funds and could result in construction delays or penalties and fines for non-compliance. HEI and its subsidiaries are subject to federal, state and local environmental laws and regulations relating to air quality, water quality, hazardous substances, waste management, natural resources and health and safety, which regulate, among other matters, the operation of existing facilities, the construction and operation of new facilities and the proper cleanup and disposal of hazardous and toxic wastes and substances. These laws and regulations could result in increased capital, operating, and other costs. HEI or its subsidiaries are currently involved in investigatory or remedial actions at current, former or third-party sites and there is no assurance that the Company will not incur material costs relating to these sites. In addition, compliance with these legal requirements requires the Utilities to commit significant resources and funds toward, among other things, environmental monitoring, installation of pollution control equipment and payment of emission fees. These laws and regulations, among other things, require that certain environmental permits be obtained in order to construct or operate certain facilities, and obtaining such permits can entail significant expense and cause substantial construction delays. Also, these laws and regulations may be amended from time to time, including amendments that increase the burden and cost of compliance. For example, emission and/or discharge limits may be tightened, more extensive permitting requirements may be imposed and additional substances may become regulated. In addition, significant regulatory uncertainty exists regarding the impact of federal or state greenhouse gas emission limits and reductions.

If HEI or its subsidiaries fail to comply with environmental laws and regulations, even if caused by factors beyond their control, that failure may result in civil or criminal penalties and fines or the cessation of operations that could have a material adverse on the Company's financial condition or results of operations.

Electric utility risks.

The following risks are generally specific to Hawaiian Electric, but could have a material adverse effect on the Company's consolidated results of operations, financial condition and liquidity.

Regulatory Risk—Actions of the PUC are outside the control of the Utilities and could result in inadequate or untimely rate increases, rate reductions or refunds or unanticipated delays, expenses or writedowns in connection with the construction of new projects. The rates the Utilities are allowed to charge for their services and the timeliness of permitted rate increases are among the most important items influencing the Utilities' results of operations, financial condition and liquidity. The PUC has broad discretion over the rates that the Utilities charge their customers. On December 23, 2020, as part of the D&O establishing the PBR Framework, the PUC established a five-year Multi-year Rate Period (MRP) during which there will be no general rate cases. In the fourth year of the MRP, the PUC will comprehensively review the PBR Framework to determine if any modifications or revisions are appropriate.

Any adverse decision by the PUC concerning the level or method of determining electric utility rates at the end of the MRP, including the items and amounts that may be included in rate base, the returns on equity or rate base found to be reasonable, the potential consequences of exceeding or not meeting such returns, the denial of exceptional project recovery applications during the MRP, adverse impact of adjustments made to the PBR Framework, decisions on recovery of exogenous items under the PBR Framework, or any prolonged delay in rendering a decision in a rate or other proceeding could have a material adverse effect on Hawaiian Electric's consolidated results of operations, financial condition and liquidity.

To improve the timing and certainty of the recovery of their costs, the Utilities have proposed and/or received approval of various cost recovery mechanisms, including an ECRC (includes a PUC-ordered 98%/2% risk-sharing split between customers and the Utilities for fossil fuel price variations from baseline prices, with a current annual aggregate exposure cap of +/- $3.7 million), a PPAC, and pension and OPEB tracking mechanisms, as well as a decoupling mechanism, an exceptional project recovery mechanism (EPRM) (formerly Major Project Interim Recovery (MPIR) adjustment mechanism), and a Renewable Energy Infrastructure Program surcharge. A change in, or the elimination of, any of these cost recovery mechanisms, could have a material adverse effect on the Utilities. See "Regulatory mechanisms" in Electric Utility's Business.

Under the PBR Framework, the Utilities' annual revenue adjustment (ARA) includes a customer dividend consisting of a negative adjustment of 0.22% compounded annually and a flow through of the "pre-PBR" savings commitment from the management audit recommendations developed in the 2020 test year rate case. The ability of the Utilities to recover increasing costs and earn a reasonable return on capital investments not covered by the ARA or not achieving the customer dividend and cost savings commitment could have a material adverse effect on the Utilities. Under the PBR Framework, the existing PIMs continue, and the PUC established new PIMs and is working on additional PIMs with stakeholders. The assessment of penalties for not achieving performance goals or the failure to achieve PIMs rewards could affect the Utilities' ability to achieve their allowed ROACEs and have a material adverse effect on the Utilities.

Related to the Maui windstorm and wildfires, the Utilities received PUC approval to temporarily suspend Maui Electric's Transmission and Distribution (T&D) System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) PIMs from August 8, 2023 through June 30, 2024. If the temporary suspension of Maui Electric's T&D PIMs is not extended beyond June 30, 2024, Maui Electric's maximum annual penalty for T&D SAIDI and SAIFI could have a $0.4 million impact on the Utilities' results of operations. The Utilities also obtained PUC approval to defer certain non-labor expenses incurred from August 8, 2023 through December 31, 2024 that are not already a part of base rates. If the PUC denies recovery of any deferred costs, such costs would be charged to expense in the period that those costs are no longer considered probable of recovery. Additionally, on August 31, 2023, the PUC issued an order temporarily suspending the ESM until further notice. The intent of the order is to address the unintended consequence of customers potentially bearing the costs associated with the Maui windstorm and wildfires through the operation of the ESM without prior PUC review. See "Performance-based regulation framework" and "Regulatory assets for Maui windstorm and wildfires related costs" in Note 4 of the Consolidated Financial Statements.

Based on the current operations of the Utilities and regulatory framework, including the impact of the approved PBR Framework, the Utilities continue to follow regulatory accounting under Accounting Standards Codification (ASC) 980. Continued accounting in this manner requires that certain criteria relating to the recoverability of such costs through rates be met, including achieved financial results that support the recovery of costs. If events or circumstances should change, such that the criteria are no longer satisfied, the Utilities expect that their regulatory assets (amounting to $295 million as of December 31, 2023), net of regulatory liabilities (amounting to $1,151 million as of December 31, 2023), would be charged to the statement of income in the period of discontinuance. See "Performance-based regulation framework" in Note 4 of the Consolidated Financial Statements.

The Utilities could be required to refund to their customers, with interest, revenues that have been or may be received under interim rate orders in their rate case proceedings and other proceedings, if and to the extent they exceed the amounts allowed in final orders.

Many public utility projects require PUC approval and various permits (e.g., environmental and land use permits) from other governmental agencies. Difficulties in obtaining, or the inability to obtain, the necessary approvals or permits, or any adverse decision or policy made or adopted, or any prolonged delay in rendering a decision, by an agency with respect to such approvals and permits, can result in significantly increased project costs or even cancellation of projects. In the event a project does not proceed, or if the PUC disallows cost recovery for all or part of a project, or if project costs exceed caps imposed by the PUC in its approval of the project, project costs may need to be written off in amounts that could result in significant reductions in Hawaiian Electric's consolidated net income.

Weather Conditions Risk—Electric utility operations are significantly influenced by weather conditions and natural disasters. The Utilities' results of operations can be affected by the weather and natural disasters. Weather conditions, particularly temperature and humidity, directly influence the demand for electricity. Additionally, severe weather and natural disasters may become more intense and/or frequent because of global climate changes. Recent natural disasters such as the Kilauea eruption in 2018, Mauna Loa eruption in 2022, and the Maui windstorm and wildfires in 2023, resulted in disruption or destruction of electric utility operations. When these types of events occur, they can cause outages and property damage and require the Utilities to incur significant additional expenses that may not be recoverable.

Climate Change Risk—Electric utility operations may be significantly influenced by climate change. While the timing, extent and ultimate effects of climate change cannot be determined with any certainty, climate change is predicted to result in sea level rise, which could potentially impact coastal and other low-lying areas (where much of the Utilities' electric infrastructure is sited), and could cause erosion of beaches, saltwater intrusion into aquifers and surface ecosystems, higher water tables and increased flooding and storm damage due to heavy rainfall. The effects of climate change on the weather (for example, floods, hurricanes, heat waves or drought conditions, the latter of which could increase wildfire risk), sea levels, and water availability and quality, all have the potential to materially adversely affect the results of operations, financial condition and liquidity of the Utilities. For example, severe weather and its related impacts could cause significant harm to the Utilities' physical facilities.

Third Party Performance Risk—Electric utility operations depend heavily on third-party suppliers of fuel and purchased power. The Utilities rely on fuel suppliers and shippers, and IPPs to deliver fuel and power, respectively, in accordance with contractual agreements. Approximately 79% of the net energy generated or purchased by the Utilities in 2023 was generated from the burning of fossil fuel oil, and purchases of power by the Utilities provided about 38% of their total net energy generated and purchased for the same period. Failure or delay by fuel suppliers and shippers to provide fuel pursuant to existing contracts, or failure by a major IPP to deliver the firm capacity anticipated in its PPA, could disrupt the ability of the Utilities to deliver electricity, affect the Utilities' maintenance schedules that could affect future reliability and require the Utilities to incur additional expenses to meet the needs of their customers that may not be recoverable. In addition, as the IPP contracts near the end of their terms, there may be less economic incentive for the IPPs to make investments in their units to ensure the availability of their units. Also, as these contractual agreements end, the Utilities may not be able to purchase fuel and power on terms equivalent to the current contractual agreements.

Capacity Risk—The capacity provided by the Utilities' generating resources and third-party purchased power may not be sufficient to meet customers' energy requirements. The Utilities rely upon their generating resources and purchased power from third parties to meet their customers' energy requirements. The Utilities update their generation capacity evaluation each year to determine the Utilities' ability to meet reasonably expected demands for service and provide reasonable reserves for emergencies and other unplanned events. These evaluations are impacted by a variety of factors, including customer energy demand, energy conservation and efficiency initiatives, economic conditions, and weather patterns. If the capacity provided by the Utilities' generating resources and third-party purchased power is not adequate relative to customer demand, the Utilities may have to contract to buy more power from third parties, invest in additional generating facilities over the long-term, or extend the operating life of existing utility units. Any failure to meet customer energy requirements could negatively impact the satisfaction of the Utilities' customers, which could have an adverse impact on the Utilities' business, reputation and results of operations.

Related to the Maui windstorm and wildfires, the Utilities continue to expect potential generation shortfalls on Maui in 2024. The Energy Reserve Margin, the planning criteria used to determine generation adequacy, is the percentage which the system generation capacity must exceed the system load in each hour. The Utilities' Energy Reserve Margin analysis indicates shortfalls in 2024, but is satisfied from 2025 through 2028 with the addition of planned generation and storage resource additions. The Utilities have plans to address this issue in 2024 through managing maintenance schedules of existing generations, and if necessary, may request for voluntary customer conservation during periods of high power demands. The environment for resource planning has increased in complexity and uncertainty and the Utilities will continue using a portfolio approach to meet its obligation to serve. This includes increased renewable energy, energy storage, and other potential options, both supply side and customer programs. If the Utilities are unable to meet customer energy requirements, it could negatively impact the satisfaction of the Utilities' customers, which could have an adverse impact on the Utilities' business, reputation and results of operations.

Stakeholder Activism Risk—Electric utility and third-party purchased power projects may be significantly impacted by stakeholder activism. The potential impact of stakeholder activism could increase total utility project costs, and delay the permitting, construction and overall timing or preclude the completion of third-party or utility projects that are required to meet electricity demand, resilience and reliability objectives, and RPS and other climate related goals. If a utility project cannot be completed, the project costs may need to be written off in amounts that could result in significant reductions in Hawaiian Electric's consolidated net income and negatively impact its financial condition and liquidity.

Operational Risk—Electric utility generating facilities are subject to operational risks that could result in unscheduled plant outages, unanticipated and/or increased operation and maintenance expenses and increased power purchase costs. Operation of electric generating facilities involves certain risks which can adversely affect energy output and efficiency levels. Included among these risks are facility shutdowns or power interruptions due to insufficient generation or a breakdown or failure of equipment or processes. In addition, operations could be negatively impacted by interruptions in fuel supply, inability to negotiate satisfactory collective bargaining agreements when existing agreements expire or other labor disputes, inability to comply with regulatory or permit requirements, disruptions in delivery of electricity, operator error, adverse weather or environmental conditions and catastrophic events such as earthquakes, tsunamis, hurricanes, fires, explosions, lava flows, floods or other similar occurrences affecting the Utilities' generating facilities or transmission and distribution systems.

Legislative Risk—The Utilities may be adversely affected by new legislation or administrative actions. Congress, the Hawaii legislature and governmental agencies periodically consider legislation and other initiatives that could have uncertain or negative effects on the Utilities and their customers. Congress, the Hawaii legislature and governmental agencies have adopted, or are considering adopting, a number of measures that will significantly affect the Utilities, as described below.

Renewable Portfolio Standards law. The 2001 Hawaii Legislature adopted a law requiring the Utilities to meet a renewable portfolio standard, which has been amended over the years. The most recent amendment to Hawaii's RPS law occurred in July 2022, which Governor Ige signed Act 240 (H.B.2089), that amended the RPS calculation from renewable energy as a percentage of sales to renewable energy as a percentage of total generation. The amended RPS calculation results in a lower calculated percentage than the amount calculated under the previous methodology. The change in the definition is to be applied prospectively to future milestone measurements and will require that the Utilities acquire more renewable energy than under the previous RPS calculation to comply with the RPS milestones. The Utilities are committed to achieving these goals and met the 2015 and 2020 RPS; however, due to the exclusion of energy savings in calculating RPS after 2014 and risks such as potential delays in IPPs being able to deliver contracted renewable energy, it is possible the Utilities may not attain the required renewable percentages in the future, and management cannot predict the future consequences of failure to do so (including potential penalties to be assessed by the PUC). On December 19, 2008, the PUC approved a penalty of $20 for every megawatt-hour (MWh) that an electric utility is deficient under Hawaii's RPS law. The PUC noted, however, that this penalty may be reduced, in the PUC's discretion, due to events or circumstances that are outside an electric utility's reasonable control, to the extent the event or circumstance could not be reasonably foreseen and ameliorated, as described in the RPS law and in an RPS framework adopted by the PUC. In addition, the PUC ordered that the Utilities will be prohibited from recovering any RPS penalty costs through rates.

Renewable energy. In 2007, a measure was passed by the Hawaii legislature stating that the PUC may consider the need for increased renewable energy in rendering decisions on utility matters. Due to this measure, it is possible that, if energy from a renewable source is more expensive than energy from fossil fuel, the PUC may still approve the purchase of energy from the renewable source, resulting in higher costs.

Global climate change and greenhouse gas emissions reduction. National and international concern about climate change and the contribution of greenhouse gas (GHG) emissions (including carbon dioxide emissions from the combustion of fossil fuels) to climate change have led to federal legislative and regulatory proposals and action by the state of Hawaii to reduce GHG emissions.

In July 2007, the State Legislature passed Act 234, which requires a statewide reduction of GHG emissions by January 1, 2020 to levels at or below the statewide GHG emission levels in 1990. On June 20, 2014, the Governor signed the final rules required to implement Act 234 and these rules went into effect on June 30, 2014. In general, Act 234 and the GHG rule require affected sources that have the potential to emit GHGs in excess of established thresholds to reduce their GHG emissions by 16% below 2010 emission levels by 2020. In accordance with state requirements, the Utilities submitted an Emissions Reduction Plan (ERP) to the State of Hawaii Department of Health on June 30, 2015, with the most recent revision filed on June 9, 2020, to reflect the partnership established between the Utilities and several IPPs. In this plan, the partnership committed to a 16% reduction in GHG emissions in accordance with the rule, which the partnership achieved in 2017 in advance of the 2020 requirement. The State of Hawaii Department of Health issued the air permits incorporating the ERP, including provisions to address the period of unavailability of the PGV facility on Hawaii Island. It is expected that with the advent of additional renewable projects and the application to the PUC with respect to the expansion of the PPA for the PGV project, the goals should be attainable.

Hawaii Revised Statutes (HRS) § 269-6(b) requires that "in making determinations of the reasonableness of the costs pertaining to electric or gas utility system capital improvements and operations, the PUC shall explicitly consider, quantitatively or qualitatively, the effect of the state's reliance on fossil fuels on price volatility, export of funds for fuel imports, fuel supply reliability risk, and greenhouse gas emissions." Based on HRS § 269-6(b) and recent case law discussing the scope of this section, the Utilities are performing GHG analyses to quantitatively or qualitatively describe the GHG emissions of proposed projects that are submitted to the PUC for approval.

In June 2018, House Bill 2182 was signed into law as Act 15 and took effect on July 1, 2018. Among its provisions, Act 15 aligned the state's clean energy and carbon sequestration efforts with climate initiative goals and established a statewide carbon neutral goal by 2045. Under this Act, efforts would be made to "sequester more atmospheric carbon and greenhouse gases than emitted within the state as quickly as practicable, but no later than 2045." The Hawaii Climate Change Mitigation and Adaptation Commission, administratively placed under the State Department of Land and Natural Resources, was charged with endeavoring to achieve the target, and giving consideration to the impact of its plans, decisions and strategies on the state's ability to attain the goal. The general functions, duties and powers of the Hawaii Climate Change Mitigation and Adaptation Commission are set forth in HRS § 225P-3. To achieve its mandates, the Hawaii Climate Change Mitigation and Adaptation Commission may recommend plans, decisions and strategies that could have an impact on various entities including the Utilities. In July 2022, House Bill 1800 was signed into law as Act 238 and took effect on July 1, 2022. The Act established a goal for the statewide greenhouse gas emissions limit to be at least 50% below 2005 levels by 2030.

The Utilities have taken, and continue to identify opportunities to take, direct action to reduce GHG emissions from their operations, including, but not limited to, supporting demand-side management programs that foster energy efficiency, using renewable resources for energy production and purchasing power from IPPs generated by renewable resources, and burning renewable biodiesel at selected Hawaiian Electric and Maui Electric generating units. In November 2021, the Utilities committed to a 70% reduction in power generation GHG emissions by 2030 compared to a 2005 baseline and achievement of net zero carbon emissions from power generation by 2045. While the reduction is not mandated by law, the Utilities could suffer reputational harm if it fails to achieve its commitments, which may negatively impact its business. Since the time the

2030 goal was established, delays and cancellations in the commercial operation of new renewable third-party generation resources and higher costs as a result of supply chain disruptions and inflationary pressures, as well as federal policies related to solar panel imports, have slowed the pace of progress toward reducing GHG emissions. The downgrade of Hawaiian Electric's credit ratings after the Maui windstorm and wildfires is anticipated to be an additional impediment to completion of new renewable energy and storage projects. As a result of these challenges, the Utilities expect the planned 70% reduction in carbon emissions to be achieved later than the original 2030 target date. However, the Utilities will continue to replace significant amounts of fossil fuel generation with renewable energy between now and 2030 and expect to meet or exceed the State of Hawaii's RPS goals.

The foregoing legislation or legislation that now is, or may in the future be, proposed, such as potential carbon "cap and trade" legislation that, if applicable, may fundamentally alter costs to produce electricity and accelerate the move to renewable generation, present risks and uncertainties for the Utilities.

Renewable Transition Risk—The Utilities may be subject to increased operational challenges and their results of operations, financial condition and liquidity may be adversely impacted in meeting the commitments and objectives of clean energy initiatives, Renewable Portfolio Standards (RPS) and other climate related goals. The far-reaching nature of the Utilities' renewable energy commitments and the RPS and other climate related goals present risks to the Company. Among such risks are: (1) the potential delay by the Public Utilities Commission of the State of Hawaii (PUC) in considering (and potential disapproval of actual or proposed) renewable energy proposals and related costs; (2) the dependence on outside parties, such as the state, developers and third-party suppliers of renewable purchased energy, which if the Utilities are unsuccessful in negotiating purchased power agreements with such IPPs or if a major IPP delays or fails to deliver the anticipated capacity and/or energy in its purchased power agreement, could impact the Utilities' achievement of their commitments to RPS and other climate related goals, eligibility for performance incentive mechanisms associated with the speed of increasing renewable generation, the ability to retire fossil fuel units, and/or the Utilities' ability to deliver reliable service; (3) delays in acquiring or unavailability of non-fossil fuel supplies for renewable generation; (4) the impact of intermittent power to the electrical grid and reliability of service if appropriate supporting infrastructure is not installed or does not operate effectively; (5) the inability to recover the undepreciated cost of fossil fuel generating units if they are required to be retired before the end of their expected useful life; (6) uncertainties surrounding current and future renewable technologies, such as solar power, wind power, biofuels, battery storage, hydro, hydrogen, as well as related environmental assessments required to meet RPS and other climate related goals; (7) the impacts of implementation of the renewable energy proposals on future costs of electricity and potential penalties imposed by the PUC for delays in the commercial operations of renewable energy projects; (8) the likelihood that the Utilities may need to make substantial investments in related infrastructure, which could result in increased borrowings and, therefore, materially impact the financial condition and liquidity of the Utilities; (9) the imputed debt related to the pending renewable power purchase agreements under the stage 1, stage 2, stage 3 and other RFPs could result in a credit rating downgrade for the Utilities and the Company; and (10) the commitment to support a variety of initiatives, which, if approved by the PUC, may have a material impact on the results of operations and financial condition of the Utilities depending on their design and implementation. These initiatives include, but are not limited to, programs to enable more customer-sited generation. The implementation of these or other programs may adversely impact the results of operations, financial condition and liquidity of the Utilities.

Bank risks.

The following risks are generally specific to ASB, but could have a material adverse effect on the Company's consolidated results of operations, financial condition and liquidity.

Interest Rate Risk—Fluctuations in interest rates could result in lower net interest income, impair ASB's ability to originate new loans, impair the ability of ASB's adjustable-rate borrowers to make increased payment obligations or impact ASB's ability to attract and retain deposits. Interest rate risk is a significant risk of ASB's operations. ASB's net interest income consists primarily of interest income received on fixed-rate and adjustable-rate loans, mortgage-backed securities and investments, less interest expense consisting primarily of interest paid on deposits and other borrowings. Interest rate risk arises when earning assets mature or reprice in a time frame different from that of costing liabilities. Changes in interest rates, including changes in the relationship between short-term and long-term tenors (e.g., a flat or an inverted yield curve) or between different interest rate indices, can impact ASB's net interest margin. See "Quantitative and Qualitative Disclosures about Market Risk."

Although ASB pursues an asset-liability management strategy designed to mitigate its risk from changes in interest rates, adverse movements in interest rates could result in lower net interest income or net interest margin. Residential 1-4 family fixed-rate mortgage loans comprised about 37% of ASB's loan portfolio as of December 31, 2023. Increases in market interest rates could have an adverse impact on ASB's cost of funds. Higher market interest rates could lead to higher interest rates paid on deposits and other borrowings. Significant increases in market interest rates, or the perception that an increase may occur, could adversely affect ASB's ability to originate new loans. An increase in market interest rates, especially a sudden increase, similar to the rapid federal funds rate increases experienced in 2022, could also adversely affect the ability of ASB's adjustable-rate borrowers to meet their higher payment obligations. If this occurred, it could cause an increase in nonperforming assets and charge-offs. Conversely, a decrease in interest rates or a mismatching of maturities of interest sensitive financial instruments could result in an acceleration in the prepayment of loans and mortgage-backed securities and impact ASB's ability to reinvest its liquidity in similar yielding assets.

ASB relies on customer deposits as a sizable source of relatively stable and low-cost funding. Changes in interest rates impact the interest paid on deposits and can significantly impact the Bank's net interest income and net interest margin. Changes in interest rates may also impact the level of low-cost core deposits that the Bank's customers maintain in their accounts, which may require ASB to seek higher costing wholesale borrowings.

Credit Risk—ASB's allowance for credit losses may not cover actual loan losses. ASB's allowance for credit losses is ASB's estimate of lifetime expected credit losses on financial instruments and other commitments to extend credit and is based on a continuing assessment of:

- existing risks in the loan portfolio;
- historical loss experience with ASB's loans;
- changes in collateral value;
- current conditions (for example, economic conditions, real estate market conditions and interest rate environment); and
- reasonable and supportable forecasts that affect the collectability of the reported amount.

If ASB's actual loan losses exceed its allowance for credit losses, it may incur losses, its financial condition may be materially and adversely affected, and additional capital may be required to enhance its capital position. In addition, various regulatory agencies, as an integral part of their examination process, regularly review the adequacy of ASB's allowance. These agencies may require ASB to establish additional allowances based on their judgment of the information available at the time of their examinations. No assurance can be given that ASB will not sustain loan losses in excess of present or future levels of its allowance for credit losses.

Operational Risk—ASB's operations are affected by factors that are beyond its control, that could result in lower revenues, higher expenses or decreased demand for its products and services. ASB's results of operations depend primarily on the income generated by the supply of, and demand for, its products and services, which primarily consist of loans and deposit services. ASB also generates income from other non-deposit products and services. ASB's revenues and expenses may be adversely affected by various factors, including:

- local, regional, national and other economic and political conditions that could result in declines in employment and real estate values, which in turn could adversely affect the ability of borrowers to make loan payments and the ability of ASB to recover the full amounts owing to it under defaulted loans;
- the ability of borrowers to obtain insurance and the ability of ASB to place insurance where borrowers fail to do so, particularly in the event of catastrophic damage to collateral securing loans made by ASB;
- faster than expected loan prepayments that can cause an acceleration of the amortization of premiums on loans and investments and the impairment of mortgage servicing assets of ASB;
- changes in ASB's loan portfolio credit profiles and asset quality, which may increase or decrease the required level of allowance for credit losses;
- technological disruptions affecting ASB's operations or financial or operational difficulties experienced by any outside vendor on whom ASB relies to provide key components of its business operations, such as business processing, network access or internet connections;
- events of default and foreclosure of loans whereby ASB becomes the owner of mortgage properties that presents environmental risk or potential clean up liability;
- the impact of legislative and regulatory changes, including changes affecting capital requirements, increasing oversight of and reporting by banks, or affecting the lending programs or other business activities of ASB;
- additional legislative changes regulating the assessment of overdraft, interchange and credit card fees, which can have a negative impact on noninterest income;
- public opinion about ASB and financial institutions in general, which, if negative, could impact the public's trust and confidence in ASB and adversely affect ASB's ability to attract and retain customers and expose ASB to adverse legal and regulatory consequences;
- increases in operating costs (including employee compensation expense and benefits and regulatory compliance costs), inflation and other factors, that exceed increases in ASB's net interest, fee and other income; and
- the ability of ASB to maintain or increase the level of deposits, ASB's lowest costing funds.

Banking Regulatory Risk—Banking and related regulations could result in significant restrictions being imposed on ASB's business or in a requirement that HEI divest ASB. ASB is subject to examination and comprehensive regulation by the Department of Treasury, the OCC and the FDIC, and is subject to reserve requirements established by the Board of Governors of the Federal Reserve System. In addition, the FRB is responsible for regulating ASB's holding companies, HEI and ASB Hawaii. The regulatory authorities have extensive discretion in connection with their supervisory and enforcement activities and examination policies to address not only ASB's compliance with applicable banking laws and regulations, but also capital adequacy, asset quality, management ability and performance, earnings, liquidity and various other factors.

Under certain circumstances, including any determination that ASB's relationship with HEI results in an unsafe and unsound banking practice, these regulatory authorities have the authority to restrict the ability of ASB to transfer assets and to make distributions to its shareholders (including payment of dividends to HEI), or they could seek to require HEI to sever its relationship with or divest its ownership of ASB. Payment by ASB of dividends to HEI may also be restricted by the OCC and FRB under its prompt corrective action regulations or its capital distribution regulations if ASB's capital position deteriorates. In order to maintain its status as a QTL, ASB is required to maintain at least 65% of its assets in "qualified thrift investments." Institutions that fail to maintain QTL status are subject to various penalties, including limitations on their activities. In ASB's case, the activities of HEI and HEI's other subsidiaries would also be subject to restrictions, and a failure or inability to comply with those restrictions could effectively result in the required divestiture of ASB. Federal legislation has also been proposed in the past that could operate to eliminate the thrift charter or the grandfathered status of HEI as a unitary thrift holding company, which in turn would result in a required divestiture of ASB. In the event of a required divestiture, federal law substantially limits the types of entities that could potentially acquire ASB.

Bank Regulatory Risk - Heightened regulatory requirements if ASB's total assets exceed $10 billion. As of December 31, 2023, ASB had total assets of approximately $9.7 billion and it is possible that total assets could exceed $10 billion in the near future. The Dodd-Frank Act and its implementing regulations impose enhanced supervisory requirements on financial institutions with more than $10 billion in total assets. For financial institutions with more than $10 billion in total assets, such requirements include, among other things:

- Applicability of Volcker Rule requirements and restrictions;
- Increased capital leverage, liquidity and risk management standards;
- Examinations by the CFPB for compliance with federal consumer financial protection laws and regulations; and
- Limits on interchange fees on debit cards (Durbin Amendment).

The Economic Growth, Regulatory Relief and Consumer Protection Act (EGRRCPA), which was enacted in 2018, amended the Dodd-Frank Act to raise the $10 billion stress testing threshold to $250 billion, among other things. The federal financial regulators issued final rules in 2019 to increase the threshold for these stress testing requirements from $10 billion to $250 billion, consistent with the EGRRCPA.

ASB is already subject to limits for its interchange fees on debit cards as the Bank's parent company, HEI, has total assets exceeding $10 billion and the Durbin Amendment did not exclude unitary thrift holding companies from the threshold for holding company assets subject to interchange fee limits.

Federal financial regulators may require ASB to take actions to prepare for compliance with the foregoing requirements before it exceeds $10 billion in total assets. ASB's regulators may consider its preparation for compliance with these regulatory requirements when examining the Bank's operations or considering any request for regulatory approval. ASB may, therefore, incur compliance costs before it reaches $10 billion in total assets and may be required to maintain the additional compliance procedures even if the Bank does not grow at the anticipated rate or at all.

Failure to comply with these new requirements may negatively impact the results of ASB's operations and financial condition. To ensure compliance, the Bank may be required to invest significant resources, which may necessitate hiring additional personnel and implementing additional internal controls. These additional compliance costs may have a material adverse effect on our business, results of operations and financial condition.

Legislative Risk—Legislative and regulatory initiatives could have an adverse effect on ASB's business. From time to time, new legislative and other regulatory initiatives are enacted, which could have an adverse effect on ASB's business. For example, the Dodd-Frank Act, which became law in July 2010, has had a substantial impact on the financial services industry. Failure to comply with laws, regulations or policies could result in sanctions by regulatory agencies, civil money penalties and/or reputational damage, which could have a material adverse effect on ASB's business, results of operations, financial condition and liquidity.

Product Concentration Risk—A large percentage of ASB's loans and securities are collateralized by real estate, and adverse changes in the real estate market and/or general economic or other conditions may result in loan losses and adversely *affect the Company's profitability*. As of December 31, 2023 approximately 84% of ASB's loan portfolio was comprised of loans primarily collateralized by real estate, most of which was concentrated in the State of Hawaii. ASB's financial results may be adversely affected by changes in prevailing economic conditions, either nationally or in the state. ASB had been pursuing a strategy that included expanding its commercial, commercial real estate and consumer lines of business. Commercial and commercial real estate loans have a higher risk profile than residential loans, in part due to larger average balances than residential loans. Though both commercial and commercial real estate loans have shorter terms and earn higher spreads than residential mortgage loans, these loan types generally entail higher underwriting and other service costs and present greater credit risks than traditional residential mortgages. Commercial loans are secured by the assets of the business and, upon default, any collateral repossessed may not be sufficient to repay the outstanding loan balance. In addition, loan collections are dependent on the borrower's continuing financial stability and, thus, are more likely to be affected by current economic conditions and adverse business developments. Commercial real estate properties tend to be unique and are more difficult to value than residential real estate properties. Commercial real estate loans may not be fully amortizing, meaning that they have a significant principal balance or "balloon" payment due at maturity. In addition, commercial real estate properties, particularly industrial and warehouse properties, are generally subject to relatively greater environmental risks than noncommercial properties and to the corresponding burdens and costs of compliance with environmental laws and regulations. Also, there may be costs and delays involved in enforcing rights of a property owner against tenants in default under terms of leases with respect to commercial properties. For example, a tenant may seek protection under bankruptcy laws, which could result in termination of the tenant's lease.

ASB also has a national syndicated lending portfolio where ASB is a participant in credit facilities agented by established and reputable national lenders. Management selectively chooses each deal based on conservative credit criteria to ensure a high-quality, well diversified portfolio. In the event the borrower encounters financial difficulties and ASB is unable to sell its participation interest in the loan in the secondary market, ASB is typically reliant on the originating lender for managing any loan workout or foreclosure proceedings that may become necessary. Accordingly, ASB has less control over such proceedings than loans it originates and may be required to accommodate the interests of other participating lenders in resolving delinquencies or defaults on participated loans, which could result in outcomes that are not fully consistent with ASB's preferred strategies. In addition, a significant proportion of ASB's syndicated loans are originated in states other than Hawaii and are subject to the local regional and regulatory risks specific to those states.

Similar to the national syndicated lending portfolio, ASB does not service commercial loans in which it has participation interests rather than being the lead or agent lender and is subject to the policies and practices of the agent lender, who is the loan servicer, in resolving delinquencies or defaults on participated loans.

The consumer loan portfolio primarily consists of solar and sustainable home improvement loans as well as unsecured loans with risk-based pricing. Repayment is based on the borrower's financial stability as these loans have no collateral and there is less assurance that ASB will be able to collect all payments due under these loans or have sufficient collateral to cover all outstanding loan balances.

General Risk Factors.

*Sustainability Risk—Increased scrutiny and changing stakeholder expectations with respect to our environmental, social and governance (*sustainability*) programs may result in increased costs and expenses and may expose the Company to new or incremental risks*. Companies across all industries, including HEI, face increasing stakeholder scrutiny related to sustainability practices. These stakeholders include investors, customers, consumers, employees, lenders and other stakeholders, and in recent years, certain stakeholders have placed increasing importance on the impact and social cost of their investments. This increased focus and activism related to sustainability may hinder the cost of, or access to, capital or financing as these investors or lenders may elect to increase their required returns on capital offered to the company, reallocate capital or not commit capital as a result of their assessment of a company's sustainability risk profile. Additionally, if the Company fails to adapt, or is perceived to have failed in addressing investor, lender, and other stakeholder sustainability expectations or standards, which continue to evolve, or if the Company fails to fully and accurately report its progress on managing risk under its sustainability initiatives, the Company may suffer reputational damage and its business or financial condition could be materially and adversely affected.

Human Capital Risk—HEI's businesses may be unable to attract, hire, engage and retain a highly skilled and diverse workforce, including senior management, which could affect the Company's execution of its growth strategy and profitability and adversely affect its future performance. The skill and experience of the Company's employees, particularly with respect to the senior management team, are vital to the Company's success. The management teams of HEI's businesses have significant industry experience and would be difficult to replace. Failure to attract, hire, develop, motivate, and retain highly qualified and diverse employee talent, to develop and implement adequate succession plans for the senior management team, or to maintain a successful work culture that fosters collaboration, innovation, and good communication could disrupt the Company's operations and adversely affect its businesses and its future success. In addition, a variety of economic and social factors are exacerbating the current labor supply shortage for qualified individuals, which may make it difficult to staff critical positions and retain key employees, and could result in significantly higher costs to maintain appropriate staffing levels with the right talent. The inability to fill these positions or a delay in staffing these positions could have a significant impact on the Company's initiatives and strategies, which in turn would adversely affect the Company's businesses and their future prospects.

Inflation Risk—The Company's costs and expenses could increase as a result of inflationary pressures and such increases may not be fully offset by an increase in revenues. A variety of economic and social factors have recently driven inflation to levels above the Federal Reserve Board's long-term target of 2%. Long-term inflationary pressures could result in higher labor, fuel oil, commodities, materials and supplies, outside services and capital costs, among others, that may not fully be offset by an increase in revenues, which would adversely affect the Company's profitability and results of operations. For example, while the Utilities' annual revenue adjustment mechanism provides for an annual inflationary adjustment, recent months' annualized rates of inflation have surpassed the rate of the last inflationary adjustment for the Utilities' target revenues. To the extent the Utilities' increase in actual expenses exceeds the amount provided by the last inflationary adjustment and the Utilities are unable to offset such excess with other efficiencies or cost savings, the Utilities' profitability could be adversely impacted. Similarly, to the extent that higher labor and other costs at ASB, due to inflation or other factors, is not fully offset by an increase in non-interest income or net interest income, which is dependent on interest rates, the shape of the yield curve, earning assets growth and low-cost deposit liabilities, the Bank's profitability and results of operations would be adversely impacted.

Pension Liability Risk—HEI and Hawaiian Electric and their subsidiaries may incur higher retirement benefits expenses and have and will likely continue to be subject to substantial liabilities for retirement benefits. Retirement benefits expenses and cash funding requirements could increase in future years depending on numerous factors, including, but not limited to, the performance of the U.S. equity markets, trends in interest rates and health care costs, plan amendments, mortality improvements, new laws relating to pension funding and changes in accounting principles. For the Utilities, however, retirement benefits expenses, as adjusted by the pension and postretirement benefits other than pensions (OPEB) tracking mechanisms, have been an allowable expense for rate-making purposes.

Tax Legislation Risk—Adverse tax rulings or developments or changes in tax legislation could result in significant increases in tax payments and/or expense. Governmental taxing authorities could challenge a tax return position taken by HEI or its subsidiaries and if the taxing authorities prevail, HEI's consolidated tax payments and/or expense, including applicable penalties and interest, could increase significantly. Additionally, changes in tax legislation or IRS interpretations could increase the Company's tax burden and adversely affect the Company's financial position, results of operations, and cash flows.

Litigation Risk—The Company could be subject to the risk of uninsured losses in excess of its accruals for litigation matters, such as litigation related to the Maui windstorm and wildfires. HEI and its subsidiaries are involved in routine litigation in the ordinary course of their businesses, most of which is covered by insurance (subject to policy limits and deductibles). HEI and its subsidiaries are also involved, and may continue to become involved, in litigation that is not routine and/or involves claims that may not be fully covered by insurance, as may be the case with litigation related to the Maui windstorm and wildfires. Because of the uncertainties associated with the litigation related to the Maui windstorm and wildfires and other routine litigation, there is a risk that this litigation against HEI or its subsidiaries, even if vigorously defended, could result in costs of defense and judgment or settlement amounts not covered by insurance and in excess of reserves established in HEI's consolidated financial statements.

Changes in Accounting Estimates Risk—Changes in accounting principles and estimates could affect the reported amounts of the Company's assets and liabilities or revenues and expenses. HEI's consolidated financial statements are prepared in accordance with accounting principles generally accepted in the U.S. Changes in accounting principles (including the possible adoption of International Financial Reporting Standards or new U.S. accounting standards), or changes in the Company's application of existing accounting principles, could materially affect the financial statement presentation of HEI's or the Utilities' consolidated results of operations and/or financial condition. Further, in preparing the consolidated financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities and the reported amounts of revenues and expenses. Actual results could differ significantly from those estimates. Material estimates that are particularly susceptible to significant change include the amounts reported for electric utility revenues; allowance for credit losses; income taxes; investment securities, property, plant and equipment; regulatory assets and liabilities; derivatives; pension and other postretirement benefit obligations; and contingencies and litigation.

Changes in accounting principles can also impact HEI's consolidated financial statements. For example, if management determines that a PPA requires the consolidation of the IPP in the financial statements, the consolidation could have a material effect on Hawaiian Electric's and HEI's consolidated financial statements, including the recognition of a significant amount of assets and liabilities and, if such a consolidated IPP were operating at a loss and had insufficient equity, the potential recognition of such losses.

ITEM 1B. UNRESOLVED STAFF COMMENTS

HEI: None.

Hawaiian Electric: Not applicable.

ITEM 1C. CYBERSECURITY

Cybersecurity risk oversight and management is a critical component of the Company's overall enterprise risk management and top priority for the Company and its Board of Directors. The Company's Board of Directors have delegated management of Enterprise Risk Management, which includes cybersecurity, to the HEI/Hawaiian Electric Audit and Risk Committees and ASB Risk Committees (collectively, the ARCs). The ARCs exercise their oversight responsibility of cybersecurity through quarterly (or more frequently if necessary) cybersecurity risk updates and incidents, if any, by management (primarily the Utilities' Chief Information Security Officer and Chief Information Officer, and the ASB Director, Information Security). In early 2023, in recognition of the increased cybersecurity threats and heightened cybersecurity risks facing the Company, the ARCs formed the Cybersecurity Working Group (CWG) comprised of three directors, one from each of the Company's Board of Directors. The purpose of the CWG is to oversee and conduct periodic meetings with management to discuss cyber risk, risk treatment, and operational activities relative to cyber risk treatment and to report matters to the ARCs. The CWG also evaluates cybersecurity areas highlighted by the ARCs including areas the CWG deems higher risk or topical and reports back to the ARCs on a quarterly basis. The CWG also coordinates with the Company's management on semi-annual trainings and annual tabletop exercises for the Board of Directors.

Electric utility

System overview. The Utilities rely on evolving and increasingly complex operational and information systems, networks and other technologies, which are interconnected with the systems and network infrastructure owned by third parties, to support a variety of business processes and activities, including procurement and supply chain, invoicing and collection of payments, customer relationship management, human resource management, the acquisition, generation and delivery of electrical service to customers, and to process financial information and results of operations for internal reporting purposes and to comply with regulatory, financial reporting, legal and tax requirements. The Utilities use their systems and infrastructure to create, collect, store, and process sensitive information, including personal information regarding customers, employees and their dependents, retirees, and other individuals.

Risk management and strategy. The Utilities have a cybersecurity program in place, which is integrated into the overall risk management program and includes a risk management strategy and risk assessment policy, which are disseminated and maintained by the Chief Information Security Officer (CISO), revisited annually and, which govern the enterprise cybersecurity risk and maturity assessment process. The program is aligned with the National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF), and leverages a risk-based approach to optimize its security investment and advance its security program's maturity and security posture over time.

The Utilities cybersecurity program adopts security measures designed to protect the confidentiality, integrity, and availability of information technology systems, network infrastructure and other assets. The Utilities' security measures, such as awareness and training, monitoring, etc. are designed to prevent, detect, and minimize the effects of a cybersecurity incident. These measures are periodically evaluated and audited against the NIST CSF by internal audit and independent third-party cybersecurity specialists.

The CISO actively monitors developments in the area of cybersecurity and is involved in various related government and industry groups and briefs the Company's Board quarterly or as needed on relevant cybersecurity issues. The Utilities continue to make investments in their cybersecurity program, including personnel, technologies, cyber insurance and training of Utilities personnel.

The Utilities have disaster recovery and incident response plans in place to protect their businesses from information technology service interruptions. The disaster recovery plans are established to help prevent the loss of customer data, service interruptions and disruptions to operations or damage to important facilities. In addition, the Utilities also maintain cyber liability insurance that covers certain damages caused by cyber incidents.

Despite the Utilities security measures, all of their systems are vulnerable to disability, failures or unauthorized access caused by natural disasters, cybersecurity incidents, security breaches, user error, unintentional defects created by system changes, military or terrorist actions, power or communication failures or similar events.

To date, the Utilities are not aware of any risks from cybersecurity threats, including as a result of any previous cybersecurity incidents, that have materially affected or are reasonably likely to materially affect the Utilities, including their business strategy, results of operations or financial condition. For further information, see "The Company is subject to information technology and operational system failures, network disruptions, cyber attacks and breaches in data security that could materially and adversely affect its businesses and reputation" in Item 1A. Risk Factors.

Governance. Cybersecurity governance is a critically important part of managing security and risk, and helps ensure that the Utilities' cybersecurity program aligns with its business objectives, complies with government and industry regulations, and achieves the goals that leadership has set out for managing security and risk.

The Company's Board of Directors oversees risks from cybersecurity threats. Oversight includes quarterly or as needed reporting from the CISO on the overall cybersecurity risk reduction program maturity, emerging and current cybersecurity risks, and the cybersecurity threat landscape.

The CISO has over 30 years of experience in assessing and managing cyber risks, is responsible for day-to-day management of cybersecurity risks and regularly reports to the Board of Directors through the CWG.

Bank

Digital information, information technology and automation are essential components of the ASB's operations and growth strategy. ASB relies on evolving and increasingly complex operational and information systems, networks and other technologies, which are interconnected with the systems and network infrastructure owned by third parties to support a variety of business processes and activities. Such activities include delivery of banking services to retail and commercial customers, customer relationship management and processing financial information and results of operations for internal and external reporting purposes. We primarily use third-party systems and infrastructure to create, collect, store, and process sensitive information, including personal information of customers, employees and their dependents.

ASB's Management Committee establishes the Bank's strategy and makes risk-informed decisions, which includes assessing and responding to cybersecurity risk. The Bank's Risk Committee of the Board of Directors oversee risks from cybersecurity threats. Oversight includes quarterly or as needed reporting on cybersecurity risk management activities, program maturity, current and emerging cybersecurity risks, and the cybersecurity threat landscape. ASB maintains a cybersecurity program that is integrated into the overall risk management program and is overseen by the Director, Information Security and governed by an Information Security policy, standards and procedures. The cybersecurity program employs a risk-based approach for managing risks through a combination of automated tools, manual processes, and third-party assessments to identify, assess, mitigate and monitor potential cybersecurity risks. In addition to policies, standards and procedures, ASB's cybersecurity program also includes periodic risk and maturity assessments, awareness and training, monitoring, and an incident response plan.

Periodic risk assessments are conducted that are aligned with the National Institute of Standards and Technology (NIST) Cybersecurity Framework and ASB leverages the results of such assessments to help optimize security investments and advance the cybersecurity program's maturity and security posture over time. The Bank's Risk Committee of the Board annually reviews and approves ASB's Information Security Policy and Gramm-Leach-Bliley Act programs and receives quarterly, or as needed, reporting on any key cybersecurity developments.

The Bank actively monitors cybersecurity developments and is involved in various industry groups and cybersecurity professional organizations. While the Bank continues to make investments in the cybersecurity program, including personnel, technologies and training of Bank personnel, there can be no assurance that these systems or their expected functionality will be implemented, maintained, or expanded effectively; nor can security measures completely eliminate the possibility of a cybersecurity breach.

While in depth processes and technological solutions are in place to help minimize the potential for a successful cyberattack, ASB maintains a cybersecurity incident response plan to help ensure a timely, consistent and compliant response to actual or attempted cybersecurity incidents. The Response Plan includes (1) detection, (2) analysis, which may include timely notice to the Board if deemed material or appropriate, (3) containment, (4) eradication, (5) recovery and (6) post-incident review.

ASB maintains a formal information security training program for all teammates that includes training on matters such as phishing and email security best practices. Teammates are also required to complete compulsory training on data privacy and the Code of Conduct.

The Bank engages with third parties to assess and test its cybersecurity posture including having independent third parties perform internal and external penetration testing as well as social engineering and phishing testing of teammates. Results of third-party testing are reported to the Management Committee and Risk Committee of the Board.

ASB relies on its information technology systems and networks in connection with many of its business activities. Some of these networks and systems are managed by third-party service providers and are not under the Bank's direct control. The Bank has implemented processes to manage the cybersecurity risks associated with its use of third-party service providers.

To date, ASB is not aware of any risks from cybersecurity threats, including or as a result of any previous cybersecurity incidents, that have materially affected or are reasonably likely to materially affect the Bank, including their business strategy, results of operations or financial condition. For further information, see "Cybersecurity Events or other disruptions of our information technology systems could adversely affect our business" in Item 1A, Risk Factors of this Annual Report.

Other segment

HEI does not have an information technology (IT) or cybersecurity risk management (CRM) department, including the resources or expertise, to manage IT/CRM-related matters and processes. HEI relies on Hawaiian Electric to provide most of its IT/CRM-related services pursuant to a Service Level Agreement (SLA), amended, as of November 1, 2023 between HEI and Hawaiian Electric. HEI also employs third party cybersecurity consultants to assist in managing CRM-related matters. The SLA outlines specific services that Hawaiian Electric provides to HEI which includes support on all IT/CRM-related matters, IT service desk support, electronic file storage and backup, hardware and software installation, inventory and maintenance, standard networking and telecommunication support, and other various IT/CRM matters, including periodic reporting to HEI's board of directors and CWG. Refer to Hawaiian Electric's cybersecurity discussion for more information.

The SLA services provide by Hawaiian Electric are mainly for applications and systems on Hawaiian Electric's infrastructure, networks and servers. The SLA does not cover support for certain software applications that were procured outside of Hawaiian Electric's procurement and IT policies and procedures. These include the HEI's general ledger application itself, excluding the infrastructure that the general ledger application is installed on, and certain cloud-based software. Although these applications are not supported by Hawaiian Electric, security measures and internal control procedures related to user access and periodic security reviews have been implemented on these applications and are performed on an on-going basis in accordance with Hawaiian Electric's IT policies and procedures. These controls are required to protect HEI's financial and other sensitive information, as well as to prevent cybersecurity breaches on Hawaiian Electric's infrastructure, networks and servers. In the event of a cybersecurity breach on these unsupported applications, HEI employs third party cybersecurity consultants to assess and resolve issues resulting from a breach, depending on its severity. Hawaiian Electric may also provide guidance and support to assist HEI in assessing and resolving cybersecurity breaches. HEI has also formulated disaster recovery plans, which are updated on an annual basis, involving all of its applications, including those applications not supported by Hawaiian Electric.

HEI's cybersecurity governance is primarily integrated within Hawaiian Electric's cybersecurity governance plan and processes. HEI's board of directors and CWG are tasked with overseeing risks from cybersecurity threats through routine quarterly, or as needed, updates and periodic deep-dive sessions. These updates provide updates on cybersecurity incidents, as well as overall cybersecurity risk reduction program maturity, emerging and current cybersecurity risks, and the cybersecurity threat landscape.

The HEI CFO oversees all IT and cybersecurity matters at HEI, including having oversight responsibility for the services delivered under the SLA. Since the HEI CFO does not have the expertise in cybersecurity, the HEI CFO works with the Hawaiian Electric CISO and, if necessary, with third-party cybersecurity consultants on assessing, identifying, and managing material cybersecurity matters impacting HEI. There were no cybersecurity incidents that have materially affected or are reasonably likely to materially affect HEI, including its business strategy, results of operations or financial condition.

ITEM 2. PROPERTIES

HEI and Hawaiian Electric: See the "Properties" sections under "HEI," "Electric utility" and "Bank" in Item 1. Business above.

ITEM 3. LEGAL PROCEEDINGS

HEI and Hawaiian Electric: HEI and Hawaiian Electric (including their direct and indirect subsidiaries) may be involved in ordinary routine PUC proceedings, environmental proceedings and/or litigation incidental to their respective businesses. See the descriptions of legal proceedings (including judicial proceedings and proceedings before the PUC and environmental and other administrative agencies) in "Item 1. Business," in HEI's MD&A and in the Notes 2, 4 and 5 of the Consolidated Financial Statements. The outcomes of litigation and administrative proceedings are necessarily uncertain and there is a risk that the outcome of such matters could have a material adverse effect on the financial position, results of operations or liquidity of HEI or one or more of its subsidiaries for a particular period in the future.

ITEM 4. MINE SAFETY DISCLOSURE

HEI and Hawaiian Electric: Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS (HEI)

The executive officers of HEI are listed below. Mss. Kimura and Teranishi are officers of HEI subsidiaries rather than of HEI, but are deemed to be executive officers of HEI under SEC Rule 3b-7 promulgated under the 1934 Exchange Act. HEI executive officers serve from the date of their initial appointment and are reappointed annually by the HEI Board (or annually by the applicable HEI subsidiary board), and thereafter are appointed for one-year terms or until their successors have been duly appointed and qualified or until their earlier resignation or removal. HEI executive officers may also hold offices with HEI subsidiaries and affiliates in addition to their current positions listed below.

Name	Age	Business experience for last 5 years and prior positions with the Company
Scott W. H. Seu	58	HEI President and Chief Executive Officer since 1/22 HEI Director since 1/22 ASB Director since 1/22, Chair 1/22 to 8/23 ASB Hawaii Director since 1/22 · Hawaiian Electric President and Chief Executive Officer, 2/20 to 12/21 · Hawaiian Electric Director, 2/20 to 12/21 · Hawaiian Electric Senior Vice President, Public Affairs, 1/17 to 2/20 · Hawaiian Electric Vice President, System Operation, 5/14 to 12/16 · Hawaiian Electric Vice President, Energy Resources and Operations, 1/13 to 4/14 · Hawaiian Electric Vice President, Energy Resources, 8/10 to 12/12 · Hawaiian Electric Manager, Resource Acquisition Department, 3/09 to 8/10 · Hawaiian Electric Manager, Energy Projects Department, 5/04 to 3/09 · Hawaiian Electric Manager, Customer Installations Department, 1/03 to 5/04 · Hawaiian Electric Manager, Environmental Department, 4/98 to 12/02 · Hawaiian Electric Principal Environmental Scientist, 1/97 to 4/98 · Hawaiian Electric Senior Environmental Scientist, 5/96 to 12/96 · Hawaiian Electric Environmental Scientist, 8/93 to 5/96
Scott T. DeGhetto	60	HEI Executive Vice President, Chief Financial Officer and Treasurer, since 10/23 · Prior to joining the Company in October 2023: Moelis & Company, Managing Director, Power, Utilities & Renewable Energy, 2011-2023.
Kurt K. Murao	54	HEI Executive Vice President, General Counsel, Chief Administrative Officer and Corporate Secretary since 1/20 · HEI Vice President - Legal & Administration and Corporate Secretary, 10/16 to 12/19 · HEI Associate General Counsel, 3/11 to 10/16
Shelee M. T. Kimura	50	Hawaiian Electric President and Chief Executive Officer since 1/22 · Hawaiian Electric Senior Vice President, Customer Service and Public Affairs, 3/21 to 12/21 · Hawaiian Electric Senior Vice President, Customer Service, 2/19 to 3/21 · Hawaiian Electric Senior Vice President, Business Development & Strategic Planning, 1/17 to 2/19 · Hawaiian Electric Vice President, Corporate Planning & Business Development, 5/14 to 1/17 · HEI Director, Investor Relations, Strategic Planning & Budget, 11/09 to 5/14 · HEI Manager, Corporate Finance and Investments, 8/04 to 11/09
Ann C. Teranishi	49	ASB President and Chief Executive Officer since 5/21 ASB Director since 5/21 · ASB Executive Vice President, Operations, 2/18 to 5/21 · ASB Senior Vice President, Director of Operations, 1/17 to 1/18 · ASB Senior Vice President, Customer Experience, 5/14 to 1/17 · ASB Senior Vice President, Director of Retail Credit Management, 4/13 to 4/14 · ASB Senior Vice President, Director of Consumer Credit Management, 4/11 to 4/13 · ASB Senior Vice President, Director of Regulatory Compliance, 9/07 to 3/11

Family relationships; executive arrangements

There are no family relationships between any HEI executive officer and any other HEI executive officer or any HEI director or director nominee. There are no arrangements or understandings between any HEI executive officer and any other person pursuant to which such executive officer was selected.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

HEI:

Certain of the information required by this item is disclosed in Note 15, "Regulatory restrictions on net assets" and "Equity compensation plan information" under "Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" of this Form 10-K.

HEI's common stock is traded on the New York Stock Exchange under the ticker symbol "HE." As of February 15, 2024, HEI had 4,753 registered shareholders (i.e., holders of record of HEI common stock), 16,928 DRIP participants and total record shareholders of 21,681. The HEI Board of Directors evaluates the dividend quarterly and considers many factors in the evaluation including, but not limited to, the Company's results of operations, the long-term prospects for the Company, and the current and expected future economic conditions. In August 2023, due to the potential impact from the Maui windstorm and wildfires, the HEI Board of Directors voted to suspend the quarterly cash dividend, starting after the second quarter of 2023 dividend. This action is intended to allow the Company to maximize liquidity and allocate cash to rebuilding and restoring power and help ensure a strong future for the Utility and Bank.

Purchases of HEI common shares were made during the fourth quarter to satisfy the requirements of certain plans as follows:

ISSUER PURCHASES OF EQUITY SECURITIES

Period*	Total Number of Shares Purchased **	Average Price Paid per Share **	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
October 1 to 31, 2023	22,544	$ 12.38	—	NA
November 1 to 30, 2023	10,401	12.93	—	NA
December 1 to 31, 2023	39,788	13.52	—	NA
Total	72,733		—	NA

NA Not applicable.

* Trades (total number of shares purchased) are reflected in the month in which the order is placed.

** The purchases were made to satisfy the requirements of the HEI Dividend Reinvestment and Stock Purchase Plan (DRIP), the Hawaiian Electric Industries Retirement Savings Plan (HEIRSP), and the ASB 401(k) Plan for shares purchased for cash or by the reinvestment of dividends by participants under those plans and none of the purchases were made under publicly announced repurchase plans or programs. Average prices per share are calculated exclusive of any commissions payable to the brokers making the purchases for the DRIP, the HEIRSP and the ASB 401(k) Plan. Of the "Total number of shares purchased," 2,194 of the 72,733 shares were purchased for the DRIP; 63,800 of the 72,733 shares were purchased for the HEIRSP; and the remaining of the 6,739 shares were purchased for the ASB 401(k) Plan. The repurchased shares were issued for the accounts of the participants under registration statements registering the shares issued under these plans.

Hawaiian Electric:

Since a corporate restructuring on July 1, 1983, all the common stock of Hawaiian Electric has been held solely by its parent, HEI, and is not publicly traded. Accordingly, information required with respect to "Market information" and "holders" is not applicable to Hawaiian Electric.

The dividends declared and paid on Hawaiian Electric's common stock for the quarters of 2023 and 2022 were as follows:

Quarters ended	2023	2022
(in thousands)		
March 31	$ 32,250	$ 31,475
June 30	32,250	31,475
September 30	32,250	31,475
December 31	32,250	31,475
Total	$ 129,000	$ 125,900

Also, see "Liquidity and capital resources" in HEI's MD&A.

See the discussion of regulatory and other restrictions on dividends or other distributions in Note 15 of the Consolidated Financial Statements.

ITEM 6. [RESERVED]

HEI and Hawaiian Electric: Not applicable.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

HEI and Hawaiian Electric (in the case of Hawaiian Electric, only the information related to Hawaiian Electric and its subsidiaries):

The following discussion should be read in conjunction with the Consolidated Financial Statements and the related Notes that appear in Item 8 of this report. For information on factors that may cause HEI's and Hawaiian Electric's actual future results to differ from those currently contemplated by the relevant forward-looking statements, see "Cautionary Note Regarding Forward-Looking Statements" at the front of this report and "Risk Factors" in Item 1A. The general discussion of HEI's consolidated results should be read in conjunction with the Electric utility and Bank segment discussions that follow.

HEI Consolidated

Executive overview and strategy. HEI is a holding company with operations primarily focused on Hawaii's electric utility and banking sectors. In 2017, HEI formed Pacific Current to make investments in non-regulated renewable energy and sustainable infrastructure projects. HEI has three reportable segments—Electric utility, Bank, and Other.

Electric utility. Hawaiian Electric, Hawaii Electric Light and Maui Electric (Utilities) are regulated operating electric public utilities engaged in the production, purchase, transmission, distribution and sale of electricity on the islands of Oahu; Hawaii; and Maui, Lanai and Molokai, respectively.

Bank. ASB is a full-service community bank serving both consumer and commercial customers in the State of Hawaii and has 35 branches on the islands of Oahu (25), Maui (4), Hawaii (3), Kauai (2), and Molokai (1).

Other. The Other segment comprises the results of Pacific Current, which invests in non-regulated clean energy and sustainable infrastructure in the State of Hawaii to help reach the state's sustainability goals, and HEI's corporate-level operating, general and administrative expenses.

A major focus of HEI's financial strategy is to grow core earnings/profitability at the Utilities, Bank and Pacific Current in a controlled risk manner and optimize operating, capital and tax efficiencies in order to support its dividend and deliver shareholder value.

Recent developments. On August 8, 2023, a number of brush fires in the West Maui (Lahaina) and Upcountry Maui areas caused widespread property damage, including damage to property of the Utilities, and 101 confirmed fatalities in Lahaina at this time (the Maui windstorm and wildfires). The Maui windstorm and wildfires were fueled by extreme winds and drought-like conditions in those parts of Maui. According to the Maui Police Department's Preliminary After-Action Report, in addition to the loss of life, over 3,450 acres burned and over 3,000 structures were destroyed in those areas. In Lahaina, a fire was reported at about 6:30 a.m. (the "Morning Fire") and appears to have been caused by power lines that fell in high winds and spread into a field near Lahaina Intermediate School. The Maui Fire Department responded promptly to the Morning Fire, and according to the Fire Department's public statement that morning, by 9 a.m. the Morning Fire was "100% contained." The Maui fire chief subsequently reported that the Fire Department had determined that the Morning Fire was "extinguished" and left the scene. Shortly before 3 p.m. that day, while the power remained off, Utility crew members saw a small fire in the same field about 75 yards away from Lahainaluna Road. They immediately called 911 and reported the fire (the "Afternoon Fire"). At the time of the Afternoon Fire, the Company's power lines in the area where that fire ignited were not energized and had not been energized for more than six hours. By the time the Maui Fire Department arrived back on the scene, it was not able to contain the Afternoon Fire and it spread out of control toward Lahaina. No determination as to the cause of the Afternoon Fire has been made. The Company believes that most of the property damage and all of the fatalities are from the Afternoon Fire.

The circumstances surrounding the Maui windstorm and wildfires are currently the subject of several investigations.

As of February 27, 2024, HEI and the Utilities have each been named in 108 lawsuits related to the Maui windstorm and wildfires. These civil and class action lawsuits have been filed in the Maui and Oahu Circuit Courts against HEI, the Utilities, and other defendants, including the County of Maui, the State of Hawaii and related state entities, private landowners and developers, and telecommunications companies (collectively, "tort-related legal claims"). Most of these lawsuits allege that the defendants were responsible for, and/or negligent in failing to prevent or respond to the wildfires that led to the property destruction and loss of life. Other claims include, among other things, personal injury, wrongful death, emotional distress and inverse condemnation. One lawsuit asserting similar theories and claims was filed by the County of Maui against HEI and the Utilities and two other lawsuits were filed by approximately 160 subrogation insurers against HEI, the Utilities, a private landowner, and telecommunication companies. Additional lawsuits may be filed against the Company and other defendants in the future. The plaintiffs seek to recover damages and other costs, including punitive damages. In addition to the tort-related legal claims, the Company is also involved in a securities class action and three shareholder lawsuits. Refer to Note 2 of the Consolidated Financial Statements for more information on these lawsuits.

Sustainability. At HEI, sustainability principles have long been embedded as applicable within the Company's activities and are integral to the Company's efforts to create value for all of its stakeholders. With all of its operations isolated in the middle of the Pacific Ocean, the Company's long-term health and financial performance is inextricably linked with the strength of the Hawaii economy, its communities, and the environment. That is why long-term shareholder and broader stakeholder value are both served by the Company's efforts to serve as a catalyst for a better Hawaii.

In 2021, the Company identified a number of priorities that reflect the essential connection between the health of Hawaii's environment, economy and communities and HEI's long-term success. The key sustainability priorities the Company is working to advance include:

- decarbonizing the Company's operations and the broader Hawaii economy;
- promoting Hawaii's economic health and improving affordability for all residents;
- ensuring resilience as the Company adapts to a changing climate, which is exacerbating conditions that can lead to increasing risk of droughts, severe storms, flooding, wildfires and other extreme weather events and natural disasters;
- maintaining resilience as the Company navigates the clean energy transition;
- advancing digitalization of the Company's operations to better serve customers and increase efficiency while protecting against cyber-security challenges;
- promoting diversity, equity and inclusion both within the Company and in the ways the Company interacts with and impacts external stakeholders;
- increasing employee engagement; and
- identifying and integrating climate-related risks and opportunities throughout the Company's planning and decision-making.

The Company has also focused on ensuring that sustainability considerations are appropriately integrated into governance structures, strategies and risk management. This includes:

- Integration of Board oversight of important sustainability matters into its existing governance structures and processes across companies. This includes full HEI Board review of sustainability-related strategies, Audit & Risk Committee oversight of sustainability-related risks, Compensation & Human Capital Management Committee responsibility for sustainability-related compensation matters and human capital management and Nominating and Corporate Governance Committee responsibility for ensuring an appropriate board governance framework is in place with respect to sustainability.
- Robust sustainability and risk management expertise among board members, including directors with direct experience in renewable energy, climate change policy and strategy, and risk and environmental management.
- Expanded sustainability goals as part of HEI and Utility executive incentive compensation.
- Sustainability considerations explicitly woven into strategic planning efforts and enterprise risk management processes.

The Company is committed to transparency and providing information to allow customers, community leaders, investors and other stakeholders to understand how the Company's strategies and operations advance sustainability objectives and contribute to long-term stakeholder value creation.

The Company issued its first consolidated sustainability report in September 2020. The report was aligned with Sustainability Accounting Standards Board (SASB) guidance—using the electric utilities standard for Hawaiian Electric, and the commercial banks, commercial finance, and mortgage finance standards for ASB. The Company has since further developed its sustainability reporting to include SASB disclosures for Hawaiian Electric and ASB and disclosures regarding risks and opportunities related to climate change, as well as associated risk management and governance processes, based on recommendations from the Task Force on Climate-related Financial Disclosures. It has also outlined key impacts for the Company under two climate scenarios, including a scenario targeted to limit global temperature rise to 2 degrees Celsius or lower. The Company's most recent reports include HEI's enterprise-wide GHG emissions inventory, providing the basis to further guide the Company's strategies and enable greater transparency around its progress on climate issues. Net enterprise-wide GHG emissions in measured categories have decreased over time, driven largely by reductions in the utility's generation-related emissions intensity. The Company's sustainability reports can be found at www.hei.com/sustainability.

HEI consolidated results of operations.

(dollars in millions, except per share amounts)	2023	% change	2022	% change	2021
Revenues	$ 3,682	(2)	$ 3,742	31	$ 2,850
Operating income	353	(7)	381	(1)	386
Net income for common stock	199	(17)	241	(2)	246
Net income (loss) by segment:					
Electric utility	$ 194	3	$ 189	6	$ 178
Bank	53	(33)	80	(21)	101
Other	(48)	(73)	(28)	15	(33)
Net income for common stock	$ 199	(17)	$ 241	(2)	$ 246
Basic earnings per share	$ 1.82	(17)	$ 2.20	(2)	$ 2.25
Diluted earnings per share	$ 1.81	(18)	$ 2.20	(2)	$ 2.25
Dividends per share	$ 1.08	(23)	$ 1.40	3	$ 1.36
Weighted-average number of common shares outstanding (millions)	109.7	—	109.4	—	109.3
Dividend payout ratio	59%		60%		73%

In 2023, net income for HEI common stock decreased (17)% to $199 million ($1.81 diluted earnings per share), compared to $241 million ($2.20 diluted earnings per share) in 2022, due to $27 million lower net income at ASB and $20 million higher net loss at the "Other" segment, partly offset by $5 million higher net income at the Utilities. The decrease in ASB's 2023 net income compared to 2022 was primarily due to a loss on the sale of investment securities and Maui wildfires related costs. The decrease in the "Other" segment's 2023 net income compared to 2022 was primarily due to Maui windstorm and wildfires related costs and higher operating expenses at Pacific Current. The increase in the Utilities' 2023 net income compared to 2022 was principally due to higher ARA revenues, which included the customer dividend delivered to customers, partially offset by higher operating expenses. See "Electric utility," "Bank," and "HEI Consolidated—Other segment" sections below for additional information on year-to-year fluctuations.

The Company's effective tax rate (combined federal and state income tax rates) was comparable at 18% in 2023, compared to 20% in 2022, primarily due to a decrease in income before income taxes in 2023, which increased the rate impact of certain tax items, higher nontaxable bank-owned life insurance, partially offset by the lower amortization in 2023 of the Utilities' regulatory liability related to certain excess deferred income taxes resulting from the Tax Act's decrease in the federal income tax rate.

For a discussion of 2021 results, please refer to the "HEI consolidated results of operations" section in Item 7, "Management Discussion and Analysis of Financial Condition and Results of Operations—HEI Consolidated," in the Company's 2022 Form 10-K.

Maui windstorm and wildfires related expenses, net. For 2023, the Company's incremental expenses related to the Maui windstorm and wildfires, which includes the $75 million contribution and insurance receivable as discussed in Note 2 of the Consolidated Financial Statements, were as follows:

	Year ended December 31, 2023			
(in thousands)	**Electric utility**	**Bank**	**Other segment**	**HEI Consolidated**
Maui windstorm and wildfires related expenses:				
Legal expenses	$ 24,737	$ 907	$ 9,232	$ 34,876
Outside services expense	10,532	2,798	1,492	14,822
Provision for credit losses	—	5,900	—	5,900
One 'Ohana Initiative contribution	75,000	—	—	75,000
Other expense	3,316	1,666	203	5,185
Interest expense	1,223	—	1,377	2,600
Total Maui windstorm and wildfires related expenses	114,808	11,271	12,304	138,383
Insurance recoveries[1]	(98,613)	—	(5,967)	(104,580)
Deferral treatment approved by the PUC[2]	(14,692)	—	—	(14,692)
Total Maui windstorm and wildfires related expenses, net of insurance recoveries and approved deferral treatment	**$ 1,503**	**$ 11,271**	**$ 6,337**	**$ 19,111**

1 Includes insurance receivable of $75 million related to the One 'Ohana Initiative contribution.

2 Related to the PUC's order, received on December 27, 2023, approving deferred accounting treatment for the Utilities' incremental non-labor expenses related to the August 2023 Maui windstorm and wildfires. Amounts were reclassified to a regulatory asset. See Item 1A. "Risk Factors" for further discussion of regulatory risks. See Note 2 of the Consolidated Financial Statements.

Note: Other segment Maui windstorm and wildfires related expenses - legal, outside services and other are included in "Expenses-Other" and interest expense is included "Interest expense, net—other than on deposit liabilities and other bank borrowings" on the HEI and subsidiaries Consolidated Statements of Income. See Electric utility and Bank sections below for more detail.

The Company expects the Electric utility and HEI to continue to incur significant expenditures in connection with the Maui windstorm and wildfires; however, the Company has partially mitigated the financial impact through insurance recoveries as well as the Utilities obtaining deferral treatment for incremental non-labor expense.

Other segment. The "other" business segment (loss)/income includes results of the stand-alone corporate operations of HEI, ASB Hawaii, and Pacific Current.

(in millions)	**2023**	**2022**	**Increase (decrease)**	**Primary reason(s)**
Revenue[1]	$ 18	$ 12	$ 6	Increase in other sales at Pacific Current subsidiaries.
Operating loss[1]	(27)	(20)	(7)	Higher HEI corporate operating loss ($24 million in 2023 vs. $22 million in 2022) primarily due to $6 million of Maui windstorm and wildfires related costs in 2023, partly offset by decrease in incentive compensation expenses. Lower Pacific Current operating income ($3 million in 2023 operating loss vs $2 million in 2022 operating income) primarily due to lower asset performance.
Interest expense & other, net of interest income	(37)	(27)	(10)	Interest expense & other, net of interest income in 2023 was higher than in 2022 primarily due to higher interest expense at corporate (higher balances and rate) and Pacific Current (higher balances).
Gain (loss) on sales of equity-method investment	(1)	8	(9)	Primarily prior year gain and current year loss on sale of an equity-method investment at Pacific Current.
Income tax benefit	17	11	6	Higher pretax loss
Net loss	$ (48)	$ (28)	$ (20)	

1 Hamakua Energy's sales to Hawaii Electric Light (a regulated affiliate) are eliminated in consolidation.

Economic conditions.

Note: The statistical data in this section is from public third-party sources that management believes to be reliable (e.g., Department of Business, Economic Development and Tourism (DBEDT), University of Hawaii Economic Research Organization (UHERO), U.S. Bureau of Labor Statistics, Department of Labor and Industrial Relations (DLIR), Hawaii Tourism Authority (HTA), Honolulu Board of REALTORS® and national and local news media).

In the fourth quarter, the average daily passenger count was 1.7% higher than the comparable period in the prior year, but down 5.6% compared to the 2019 pre-COVID-19 count. The recovery in total passenger counts from the low levels in 2020, which occurred under COVID-19 restrictions, thus far has been driven by domestic travelers, with international travelers, primarily Japan, remaining at lower levels, but activity is increasing compared to 2022. In the fourth quarter, international visitor arrivals (excluding Japan) have continued to increase at a modest pace, but are still 16% below 2019 levels, whereas Japanese visitors are 45% below 2019 levels.

Hawaii's seasonally adjusted unemployment rate in December 2023 was 2.9%, which was lower compared to the December 2022 rate of 3.7%. The national unemployment rate in December 2023 was 3.7% compared to 3.5% in December 2022. According to the most recent forecast by UHERO, issued on December 15, 2023, job growth in the state will decrease to 1% for 2024 and 2025. The Maui windstorm and wildfires destroyed a majority of the businesses in Lahaina, and tourism in West Maui is not expected to recover for some time. However, unemployment is forecasted to be lower than initially expected, reflecting faster employment recovery and anticipated outflows from the labor force as some residents relocate off island. Accordingly, unemployment on Maui is predicted to average 4.4% in 2024, receding to 3.1% by 2026.

While economic conditions appear to be trending favorably, the Utilities' kWh sales in 2023 were down by 1.5%, compared to 2022 due to a decrease in Maui sales from the Maui windstorm and wildfires and the continued adoption of energy efficiency measures and distributed energy resources. While the level of kWh sales does not affect Utility revenues due to decoupling, it may increase or decrease the price per kWh paid by customers. See "Decoupling" in Note 4 of the Consolidated Financial Statements for a discussion of the decoupling mechanism.

Hawaii real estate activity through December 2023, as indicated by Oahu's home resale market, resulted in an increase in the median sales price of 1.5% for condominiums and a decrease of 5.1% for single-family homes compared to the same period in 2022, with the December median single-family home price of $996,500, below the record $1,153,500 set in May 2022. The number of closed sales decreased 24.4% for condominiums and 9.9% for single-family residential homes through the fourth quarter of 2023 compared to 2022.

Hawaii's petroleum product prices relate to the crude oil in international markets. The price of crude oil has decreased through July 2023 and since then, gradually increased through September and then decreased through December, although remaining below 2022's peak.

At its December 13, 2023 meeting, the Federal Open Market Committee (FOMC) decided to maintain the federal funds rate target range of 5.25% - 5.50%. The FOMC is still assessing plans to adjust their stance on monetary policy depending on the economic outlook to achieve maximum employment and inflation at the rate of 2 percent over the long run. The Federal Reserve stated that it will continue to reduce its holdings of Treasury securities and agency mortgage-backed securities.

Since its peak in June of 2022, monthly inflation rates have decreased as reflected in the U.S. Consumer Price Index (CPI). Although the inflation rate, as measured by CPI, appears to be cooling off from last year's peak, the rate is still at a moderately-high level of 3.4% as of December 2023. These inflationary pressures are expected to continue over the near- to medium-term and have led to higher costs for O&M and capital projects and higher interest expense at the Utilities and HEI, as well as higher compensation and benefits cost at the Bank.

UHERO forecasts full year 2024 real GDP growth of 1.5%, an increase in total visitor arrivals of 2.0%, an increase in real personal income of 1.6%, and an unemployment rate of 2.7%. The Maui visitor industry has been recovering faster than anticipated and visitors to the rest of the state have reached record levels. The forecast anticipates visitors to Hawaii will be nearly flat in 2024, before returning to moderate growth in 2025. Hawaii has seen softer visitor spending in 2023 due to the disruption of high-priced Maui tourism along with the weak yen, which has weighed on Oahu spending. Real visitor spending is expected to drop in 2024 and 2025. The U.S. outperformed most advanced economies in 2023, but high interest rates have weighed on investment, and the labor market has softened. Consumer spending will slow as excess savings decrease, which will help bring inflation into the Fed's target range and achieve a "soft landing" 1.1% growth in 2024. If economic conditions worsen from current levels or remain depressed for an extended period of time, it could have a material unfavorable impact on the Company's financial position or results of operations.

See also "Recent Developments" in the "Electric utility" and "Bank" sections below for further discussion of the economic impact of recent events.

Liquidity and capital resources. The Company's objective continues to be to operate a strong, financially healthy enterprise to empower a thriving future for Hawaii. While the fundamentals of its businesses remain strong, the Company took prudent and measured actions to reinforce its commitment to serving the community for the long term. In August 2023, HEI and Hawaiian Electric fully drew down $175 million and $200 million, respectively, on their existing revolving credit facilities. The cash proceeds were primarily invested in highly liquid short-term investments and used for general corporate purposes. The Company has taken additional prudent measures to strengthen its financial position while continuing to provide reliable service to its customers and reinforcing our commitment to serving the community for the long term. Some of these proactive measures include suspending the quarterly cash dividend on HEI's common stock after payment of the second quarter dividend in September 2023 and reducing or eliminating discretionary costs. At ASB, approximately $185 million of investment securities primarily with below-market yields were sold with the proceeds used to pay down higher cost funding sources. The Company is working with financial advisors to maximize liquidity and believes it has adequate cash to meet its financial obligations and sustain operations in the short term.

As of December 31, 2023, HEI had $175 million drawn on its revolving credit facility and no commercial paper outstanding, and $137 million of cash and cash equivalents. As of December 31, 2023, Hawaiian Electric had $200 million drawn on its revolving credit facility and no commercial paper outstanding, and $106 million of cash and cash equivalents.

As of December 31, 2023, the total amount of available borrowing capacity (net of commercial paper outstanding) under HEI's and Hawaiian Electric's committed lines of credit was nil (see Note 6 of the Consolidated Financial Statements). As of December 31, 2022, the total amount of available borrowing capacity (net of commercial paper outstanding) under HEI's and Hawaiian Electric's committed lines of credit was approximately $125 million and $112 million, respectively.

As of December 31, 2023, ASB's unused FHLB borrowing capacity was approximately $1.9 billion and ASB had unpledged investment securities of $0.6 billion that were available to be used as collateral for additional borrowing capacity.

On March 16, 2023, HEI executed a private placement under which HEI authorized the issue and sale of $100 million of unsecured senior notes that were fully drawn on May 30, 2023. The proceeds of the unsecured senior notes, HEI Series 2023A for $39 million and HEI Series 2023B for $61 million, were used to repay the $100 million term loan facility on May 31, 2023. The HEI Series 2023A and 2023B bear interest at 6.04% and 6.10%, respectively and are due June 15, 2028 and June 15, 2033, respectively. See Note 7 of the Consolidated Financial Statements for additional information.

The Company believes that its cash and cash equivalents and expected operating cash flow from operations will be sufficient to meet the Company's cash requirements in the short term based on its current business plans. However, the Company expects that HEI and the Utilities' liquidity will continue to be impacted as a result of the August 2023 downgrades of their credit ratings to below investment grade which prevents the Company from accessing unsecured, short-term borrowings and will continue to have restricted access to the capital markets and other sources of debt and equity financing in a timely manner and on acceptable terms while the resolution of the Maui windstorm and wildfires and the ongoing related lawsuits are pending. Additionally, higher working capital requirements resulting from lingering COVID-19 impacts to the local economy and elevated fuel prices, could also increase liquidity needs. For the Utilities, while fuel prices have moderated from their highs in 2022, they remain elevated and have increased the cost of carrying fuel inventory and higher customer accounts receivable balances as fuel is consumed and billed to customers. While the accounts receivable balance has decreased since December 2022, it remains elevated coming out of the pandemic and has led to higher bad debt expense and higher write-offs in 2022 and 2023, following the end of the moratorium on disconnections. The higher bad debt expense is expected to continue until the Utilities return to pre-pandemic collection practices, along with a decrease in volume, for delinquent accounts. The Maui windstorm and wildfires have not and are not anticipated to materially impact accounts receivable and higher bad debt expense. As of December 31, 2023, approximately $22 million of the Utilities' accounts receivables were over 30 days past due. Of the over 30 days past due amounts, approximately 49% were on payment plans. In addition to the cash flow impact from delayed collection of accounts receivable, lower kWh sales relative to the level of kWh sales approved in the last rate case generally result in delayed timing of cash flows, resulting in higher working capital requirements (see "Recent Developments" in the Electric utility section below).

If further liquidity is deemed necessary in the short term, the Utilities could also reduce the pace of capital spending related to non-essential projects, manage O&M expenses, seek borrowings on a secured basis, and explore asset sales.

At ASB, liquidity remains at satisfactory levels. ASB's cash and cash equivalents was $435 million as of December 31, 2023, compared to $156 million as of December 31, 2022. ASB remains well above the "well capitalized" level under the FDIC Improvement Act prompt correction action capital category, and while the Hawaii economic outlook remains stable, there are emerging risks from potential continued turmoil in the banking industry, inflation, higher interest rates and the tightening of monetary policy that increase the risk of a recession which could create increased uncertainty regarding the impact on loan performance and the allowance for credit losses (see "Recent Developments" in the Bank section below).

HEI Consolidated material cash requirements. Material cash requirements of HEI Consolidated include: Utility related capital expenditures (including capital expenditures related to wildfires and wildfire mitigations), labor and benefit costs, O&M expenses, legal and consulting costs related to the Maui windstorm and wildfires, fuel and purchase power costs, and debt and interest payments; Bank related investments in loans; HEI related labor and benefits costs, shareholder dividends, debt and interest payments and legal and consulting costs related to the Maui windstorm and wildfires; and HEI equity contributions to support Pacific Current's sustainable infrastructure investments.

Forecasted HEI consolidated "net cash used in investing activities" (excluding "investing" cash flows from ASB) consists primarily of the net capital expenditures of the Utilities principally related to maintaining and modernizing the grid to allow for the integration of more renewable energy, improved customer reliability, greater system efficiency and enhanced resilience. The Utilities' capital expenditures are forecasted to be funded primarily through a combination of retained earnings and proceeds from other sources of debt financings (see also discussion regarding other material cash requirements under "Financial Condition–Liquidity and capital resources," contained in the "Electric utility" and "Bank" sections below). In addition to the funds required for the Utilities' construction programs and debt maturities, with respect to HEI, approximately $50 million will be required in 2025 to repay maturing long-term debt. Debt maturities are expected to be repaid with the proceeds from existing cash on hand, and if available, the issuance of commercial paper, bank borrowings, other medium- or long-term debt, issuance of common stock and/or dividends from subsidiaries. The abilities of certain of HEI's subsidiaries to pay dividends or make other distributions to HEI are subject to contractual and regulatory restrictions (see Note 15 of the Consolidated Financial Statements). Additional debt and/or equity financing, if available, may be utilized to invest in the Utilities, Bank or Pacific Current; to pay down commercial paper or other short-term borrowings, if any; to pay interest costs; or to fund unanticipated expenditures, such as increases in the costs of, or an acceleration of, the construction of capital projects of the Utilities or unanticipated utility capital expenditures. In addition, existing debt may be refinanced prior to maturity with additional debt or equity financing (or both).

Certain Maui windstorm and wildfires legal-related costs of HEI and the Utilities, including the *One 'Ohana Initiative* contribution, are recoverable under $165 million of excess liability insurance and $145 million of directors and officers liability insurance policies (see further information in Note 2 of the Consolidated Financial Statements). As of December 31, 2023, HEI and the Utilities have approximately $66 million and $139 million of insurance coverage remaining under the excess liability and directors and officers liability policies, respectively, after deducting applicable retention amounts and estimated insurance recoveries, including the *One 'Ohana Initiative* contribution.

Selected short-term and long-term contractual obligations and commitments. Information about payments under the specified contractual obligations and commercial commitments of HEI and its subsidiaries was as follows:

December 31, 2023 **(in millions)**	**Less than 1 year**	**1-3 years**	**3-5 years**	**More than 5 years**	**Total**
Contractual obligations					
Investment in qualifying affordable housing projects	$ 35	$ 43	$ 9	$ 1	$ 88
Time certificates	899	151	12	2	1,064
Other bank borrowings	550	200	—	—	750
Long-term debt	18	283	722	1,835	2,858
Interest on CDs, other bank borrowings, short-term loan and long-term debt	171	240	187	781	1,379
Operating and finance leases					
PPAs classified as leases	38	76	72	511	697
Other leases	21	32	16	33	102
Service bureau contract, maintenance agreements and other	23	23	10	—	56
Hawaiian Electric open purchase order obligations[1]	172	61	7	7	247
Hawaiian Electric fuel oil purchase obligations (estimate based on fuel oil price at December 31)	4	5	—	—	9
Hawaiian Electric power purchase–minimum fixed capacity charges not classified as leases	84	169	177	599	1,029
Liabilities for uncertain tax positions	4	1	10	—	15
Total (estimated)	$ 2,019	$ 1,284	$ 1,222	$ 3,769	$ 8,294

[1] Includes contractual obligations and commitments for capital expenditures and expense amounts.

The table above does not include other categories of obligations and commitments, such as deferred taxes, certain trade payables, amounts that will become payable in future periods under collective bargaining and other employment agreements and employee benefit plans, and potential refunds of amounts collected from ratepayers (e.g., under the earnings sharing mechanism). As of December 31, 2023, the fair value of the assets held in trusts to satisfy the obligations of the Company's retirement benefit plans did not exceed the retirement benefit plans' benefit obligation. Minimum funding requirements for retirement benefit plans have not been included in the table above; however, see Note 11 of the Consolidated Financial Statements for 2024 estimated contributions.

See Note 4 of the Consolidated Financial Statements for a discussion of the Utilities' commitments. See Note 5 of the Consolidated Financial Statements for a further discussion of ASB's commitments.

Operating activities provided net cash of $551 million in 2023 and $454 million in 2022. Investing activities used net cash of $257 million in 2023 and $1,129 million in 2022. In 2023, net cash used in investing activities was primarily due to capital expenditures and a net increase in loans receivable, partly offset by proceeds from sale of securities, receipt of repayments from available-for-sale investment securities, proceeds from sale of commercial loans and repayments from held-to-maturity investment securities. In 2022, net cash used in investing activities was primarily due to net increase in loans receivable, purchases of available-for-sale investment securities, capital expenditures, purchases of loans held for investment and net purchases of stock from Federal Home Loan Bank, partly offset by receipt of repayments from available-for-sale and held-to-maturity investment securities.

Financing activities provided net cash of $196 million in 2023 and $568 million in 2022. In 2023, net cash provided by financing activities included proceeds from other bank borrowings, revolving credit facilities and long-term debt, partly offset by repayment of other bank borrowings and long-term debt, net decreases in deposit liabilities, other bank borrowings and short-term borrowings and payment of common and preferred stock dividends. In 2022, net cash provided by financing activities included net increases in other short-term borrowings and proceeds from issuance of short-term and long-term debt and net increases in short-term borrowings, partly offset by repayment of long-term debt and payment of common and preferred stock dividends.

For a discussion of 2021 operating, investing and financing activities, please refer to the "Liquidity and capital resources" section in Item 7, "Management Discussion and Analysis of Financial Condition and Results of Operations—HEI Consolidated," in the Company's 2022 Form 10-K.

Other than capital contributions from their parent company, intercompany services (and related intercompany payables and receivables), Hawaiian Electric's periodic short-term borrowings from HEI (and related interest) and the payment of dividends to HEI, the electric utility and bank segments are largely autonomous in their operating, investing and financing activities. (See the electric utility and bank segments' discussions of their cash flows in their respective "Liquidity and capital resources" sections below.) During 2023, Hawaiian Electric and ASB (through ASB Hawaii) paid cash dividends to HEI of $129 million and $39 million, respectively.

In August 2023, due to the potential impact from the Maui windstorm and wildfires, the HEI Board of Directors voted to suspend the quarterly cash dividend, starting after the second quarter dividend. This action is intended to allow the Company to provide additional liquidity and allocate cash to rebuilding and restoring power and help ensure a strong future for the Utilities and Bank. The ASB Board of Directors determined to suspend its quarterly cash dividends to HEI, starting after the second quarter dividend, to help ensure maximum possible Bank liquidity and capital. The Hawaiian Electric Board of Directors reduced its fourth quarter cash dividend to HEI, from $32 million in the third quarter, to $13 million, to allow the Utilities to devote more resources to restoration work on Maui and to make critical capital investments, including for wildfire mitigation. A material reduction or delay in dividends or other distributions from one or more of the operating subsidiaries to HEI for an extended period of time could have a material adverse effect on the Company's financial condition and results of operation.

A portion of the net assets of Hawaiian Electric and ASB is not available for transfer to HEI in the form of dividends, loans or advances without regulatory approval. In the absence of an unexpected material adverse change in the financial condition of the electric utilities or ASB, such restrictions are not expected to significantly affect the operations of HEI or its ability to meet its debt or other cash obligations. See Note 15 of the Consolidated Financial Statements.

Although the Company's credit rating downgrades related to the Maui windstorm and wildfires will continue to adversely impact its ability to access capital markets and other sources of debt and equity financing, if at all, in a timely manner and on acceptable terms, the Company currently believes that its ability to generate cash, both internally from electric utility and banking operations and the existing cash fully drawn on its revolving credit facilities is adequate to maintain sufficient liquidity to fund its contractual obligations and commercial commitments, its forecasted capital expenditures and investments, its expected retirement benefit plan contributions and other material cash requirements in the short term. However, in the long-term, any material reduction or extended delay in dividends or other distributions from one or more operating subsidiaries to HEI and the potential damages and losses related to the Maui windstorm and wildfires and related lawsuits (see further information in Note 2 of the Consolidated Financial Statements), the economic impact of higher fuel prices, inflation, higher interest rates, tightening of monetary policy and geopolitical situations, create significant uncertainty, and the Company cannot predict the extent or duration of these conditions, the future effects that these conditions will have on the Company's cost of capital and its ability to access additional capital, or the future impacts on the Company's financial position, results of operations, and cash flows. See Item 1A. "Risk Factors" in Part I for further discussion of risks and uncertainties.

The consolidated capital structure of HEI (excluding deposit liabilities and other bank borrowings) was as follows:

December 31	2023			2022		
(dollars in millions)						
Short-term borrowings, net—other than bank	$	—	—%	$	173	3%
Long-term debt, net—other than bank		2,842	54		2,385	50
Preferred stock of subsidiaries		34	1		34	1
Common stock equity		2,345	45		2,202	46
	$	5,221	100%	$	4,794	100%

HEI's commercial paper borrowings and line of credit facility were as follows:

	Year ended December 31, 2023		
(in millions)	**Average balance**	**End-of-period balance**	**December 31, 2022**
Commercial paper	$ 24	$ —	$ 50
Line of credit draws on revolving credit facility	63	175	—

Note: This table does not include Hawaiian Electric's separate commercial paper issuances and line of credit draws on its revolving credit facility, which are disclosed below under "Electric utility—Liquidity and capital resources". The maximum amount of HEI's short-term commercial paper borrowings in 2023 was $99 million. As of December 31, 2023, available committed capacity under HEI's line of credit facility was nil.

Prior to the Maui windstorm and wildfires, HEI utilized short-term debt, typically commercial paper, to support normal operations, to refinance commercial paper, to retire long-term debt, to pay dividends and for other temporary requirements, including short-term financing needs of its subsidiaries. HEI also periodically makes short-term loans to Hawaiian Electric to meet Hawaiian Electric's cash requirements, including the funding of loans by Hawaiian Electric to Hawaii Electric Light and Maui Electric, but no such short-term loans to Hawaiian Electric were outstanding as of December 31, 2023. Historically, HEI also periodically utilized unsecured long-term debt, to fund investments in and loans to its subsidiaries to support their capital improvement or other requirements, to repay long-term and short-term indebtedness and for other corporate purposes. The downgrades of HEI's credit ratings will impact HEI's ability to access capital markets and other sources of debt and equity financing, if at all, in a timely manner and on acceptable terms.

See Notes 6 and 7 of the Consolidated Financial Statements for a brief description of the Company's loans.

In August 2023, the credit ratings of HEI and Hawaiian Electric were subject to multiple downgrades, including to ratings below investment grade, by Fitch, Moody's and S&P. These rating actions were primarily due to the uncertainty facing the Company due to the damages caused by the Maui windstorm and wildfires. From prior to the August 2023 downgrades, to as of February 15, 2024, the Fitch, Moody's and S&P ratings of HEI were as follows:

	Fitch		**Moody's**		**S&P**	
	To	From	To	From	To	From
Long-term issuer default, long-term corporate family and issuer credit, respectively	B	BBB+	B1[1]	WR[1]	B-	BBB-
Short-term issuer default, commercial paper and commercial paper, respectively	B	F2	NP	P-2	B	A-3
Outlook	Watch Negative	Stable	Stable[2]	Stable	Watch Negative	Stable

1 Prior to the August 2023 downgrades, Moody's long-term debt rating was withdrawn because HEI did not have any outstanding, publicly traded debt. In December 2023, Moody's assigned HEI a long-term corporate family rating of "B1." Moody's continues to rate Hawaiian Electric's long-term debt. See 'Electric utility–Liquidity and capital resources' below.

2 In December 2023, Moody's revised HEI's outlook from "Review for Downgrade" to "Stable" due to several positive developments, including proactive efforts by the State of Hawaii to develop a plan to address the financial and legal issues raised by the wildfires.

Note: The above ratings reflect only the view, at the time the ratings are issued or affirmed, of the applicable rating agency, from whom an explanation of the significance of such ratings may be obtained. Such ratings are not recommendations to buy, sell or hold any securities; such ratings may be subject to revision or withdrawal at any time by the rating agencies; and each rating should be evaluated independently of any other rating.

See “Credit and Capital Market Risk” in Item 1A. Risk Factors. The downgrades of HEI’s and Hawaiian Electric’s credit ratings impacted the Company’s ability to access capital markets and other sources of debt and equity financing, if at all, in a timely manner and on HEI’s acceptable terms.

There were no new issuances of common stock through the HEIRSP or the ASB 401(k) Plan in 2023, 2022 or 2021 and HEI satisfied the share purchase requirements of the HEIRSP and ASB 401(k) Plan through open market purchases of its common stock. There were no new issuances of common stock through the Dividend Reinvestment Program (DRIP) from January 2023 through September 4, 2023, December 6 through December 31, 2023, in 2022 or in 2021 and HEI satisfied the share purchase requirements of the DRIP through open market purchases of its common stock. From September 5 through December 5. 2023, HEI satisfied the share purchase requirements of the Dividend Reinvestment Program (DRIP) through new issuances of approximately 0.5 million shares of common stock, amounting to $6.6 million, primarily for participants receiving the September 2023 dividend payment.

Off-balance sheet arrangements. Although the Company and the Utilities have certain off-balance sheet arrangements, management has determined that it has no off-balance sheet arrangements that either have, or are reasonably likely to have, a current or future effect on the Company’s and the Utilities’ financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to investors, including the following types of off-balance sheet arrangements:

1. obligations under guarantee contracts,
2. retained or contingent interests in assets transferred to an unconsolidated entity or similar arrangements that serve as credit, liquidity or market risk support to that entity for such assets,
3. obligations under derivative instruments, and
4. obligations under a material variable interest held by the Company or the Utilities in an unconsolidated entity that provides financing, liquidity, market risk or credit risk support to the Company or the Utilities, or engages in leasing, hedging or research and development services with the Company or the Utilities.

Material estimates and critical accounting policies. In preparing financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities and the reported amounts of revenues and expenses. Actual results could differ significantly from those estimates.

Material estimates that are particularly susceptible to significant change include the amounts reported for pension and other postretirement benefit obligations; contingencies and litigation; income taxes; regulatory assets and liabilities; allowance for credit losses; fair value; and asset retirement obligations (AROs). Management considers an accounting estimate to be material if it requires assumptions to be made that were uncertain at the time the estimate was made and changes in the assumptions selected could have a material impact on the estimate and on the Company’s results of operations or financial condition.

In accordance with SEC Release No. 33-8040, “Cautionary Advice Regarding Disclosure About Critical Accounting Policies,” management has identified the accounting policies it believes to be the most critical to the Company’s financial statements—that is, management believes that the policies discussed below are both the most important to the portrayal of the Company’s results of operations and financial condition, and currently require management’s most difficult, subjective or complex judgments. The policies affecting both of the Company’s two principal segments are discussed below and the policies affecting just one segment are discussed in the respective segment’s section of “Material estimates and critical accounting policies.” Management has reviewed the material estimates and critical accounting policies with the HEI Audit & Risk Committee and, as applicable, the Hawaiian Electric Audit & Risk Committee.

For additional discussion of the Company’s accounting policies, see Note 1 of the Consolidated Financial Statements and for additional discussion of material estimates and critical accounting policies, see the electric utility and bank segment discussions below under the same heading.

Pension and other postretirement benefits obligations. The Company’s benefit obligations and reported costs of providing retirement benefits are dependent upon numerous factors resulting from actual plan experience and assumptions about future experience. For example, retirement benefits costs are impacted by actual employee demographics (including age and compensation levels), the level of contributions to the plans, earnings and realized and unrealized gains and losses on plan assets, and changes made to the provisions of the plans. Costs may also be significantly affected by changes in key actuarial assumptions, including the expected return on plan assets, the discount rate and mortality. The Company’s accounting for retirement benefits under the plans in which the employees of the Utilities participate is also adjusted to account for the impact of decisions by the PUC. Changes in obligations associated with the factors noted above may not be immediately recognized as costs on the income statement, but generally are recognized in future years over the remaining average service period of plan participants.

The discount rate used to calculate the Company's benefit obligations is a significant assumption that affects the Company's benefit obligations. As of December 31, 2023, the discount rates for HEI and the Utilities' pension and other benefits plans were 5.35% and 5.39%, respectively. Based on various assumptions in Note 11 of the Consolidated Financial Statements, sensitivities of the projected benefit obligation (PBO) and accumulated postretirement benefit obligation (APBO) as of December 31, 2023, associated with a change in the discount rate, were as follows and constitute "forward-looking statements":

Actuarial assumption	Change in assumption in basis points	Impact on HEI Consolidated PBO or APBO	Impact on Consolidated Hawaiian Electric PBO or APBO
(dollars in millions)			
Pension benefits			
Discount rate	+/-50	$(129)/$145	$(122)/$137
Other benefits			
Discount rate	+/-50	$(7)/$8	$(7)/$8

Also, see Notes 1 and 11 of the Consolidated Financial Statements.

Contingencies and litigation. The Company is subject to proceedings (including PUC proceedings), lawsuits and other claims. Management assesses the likelihood of any adverse judgments in or outcomes of these matters as well as potential ranges of probable losses. A determination of the amount of reserves required, if any, for these contingencies is based on an analysis of each individual case or proceeding often with the assistance of outside counsel. The required reserves may change in the future due to new developments in each matter or changes in approach in dealing with these matters, such as a change in settlement strategy.

In general, environmental contamination treatment costs are charged to expense, unless it is probable that the PUC would allow such costs to be recovered through future rates, in which case such costs would be capitalized as regulatory assets. Also, environmental costs are capitalized if the costs extend the life, increase the capacity, or improve the safety or efficiency of property; the costs mitigate or prevent future environmental contamination; or the costs are incurred in preparing the property for sale.

Although the Company is unable to predict the ultimate outcome of the Maui windstorm and wildfires investigation, it is reasonably possible that the Company may incur losses related to the Maui windstorm and wildfires which may be material beyond the $75 million contribution to the One 'Ohana Initiative and incurred legal costs. In addition, on November 6, 2023, the Hawaii Insurance Division of the State of Hawaii Department of Commerce and Consumer Affairs released preliminary data on Maui windstorm and wildfires claims, and the Hawaii Insurance Division has subsequently provided updated data. Through November 30, 2023, the data collected from over 200 insurers indicated estimated total insured losses for residential and personal property of more than $1.6 billion. The estimated total losses represent insured claims related to personal motor vehicles and residential property (i.e., homeowners insurance, dwelling-fire landlord, condominium unit owner, renters insurance, and other residential property) and do not account for uninsured or underinsured property losses, commercial property losses, interest, attorneys' fees, fire suppression and clean-up costs, evacuation costs, personal injury or wrongful death damages, medical expenses or other costs, such as potential punitive damages, fines or penalties. It is uncertain whether the insured claims reported to the Hawaii Insurance Division are complete, and together with property damage claims unaccounted for, as mentioned above, the total amount of property damage claims could be materially higher than the amount reported by the Hawaii Insurance Division. The Hawaii Insurance Division did not state whether it intends to provide updated information in the future. See Note 2 of the Consolidated Financial Statements for more information.

See Notes 1, 2, 4 and 5 of the Consolidated Financial Statements.

Income taxes. Deferred income tax assets and liabilities are established for the temporary differences between the financial reporting bases and the tax bases of the Company's assets and liabilities using tax rates expected to be in effect when such deferred tax assets or liabilities are realized or settled. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible.

Management evaluates its potential exposures from tax positions taken that have or could be challenged by taxing authorities. These potential exposures result because taxing authorities may take positions that differ from those taken by management in the interpretation and application of statutes, regulations and rules. Management considers the possibility of alternative outcomes based upon past experience, previous actions by taxing authorities (e.g., actions taken in other jurisdictions) and advice from its tax advisors. Management believes that the Company's provision for tax contingencies is reasonable. However, the ultimate resolution of tax treatments disputed by governmental authorities may adversely affect the Company's current and deferred income tax amounts.

See Note 13 of the Consolidated Financial Statements.

Following are discussions of the electric utility and bank segments. Additional segment information is shown in Note 3 of the Consolidated Financial Statements. The discussion concerning Hawaiian Electric should be read in conjunction with its consolidated financial statements and accompanying notes.

Electric utility

Executive overview and strategy. The Utilities provide electricity on all the principal islands in the state, other than Kauai, to approximately 95% of the state's population, and operate five separate grids. The Utilities' mission is to provide innovative energy leadership for Hawaii, to meet the needs and expectations of customers and communities, and to empower them with affordable, reliable and clean energy. The goal is to create a safe, modern, resilient, flexible, and dynamic electric grid that protects Hawaii from impacts of climate change and enables an optimal mix of distributed energy resources, such as private rooftop solar, demand response, and grid-scale resources to enable the creation of smart, sustainable, resilient communities and achieve its decarbonization goals that are aligned with the statutory goal of 100% renewable energy by 2045.

Recent developments. See also "Recent developments" in HEI's MD&A and Note 2 of the Consolidated Financial Statements, which includes disclosures relating to Maui windstorm and wildfires.

For the full year 2023, operation and maintenance expenses were higher by approximately $36 million, or 7%, as compared to 2022. The increase was mainly due to costs incurred associated with the Maui windstorm and wildfires and higher transmission and distribution (T&D) preventative and corrective maintenance resulting primarily from more trouble calls. Higher costs due to inclement weather related issues, higher labor and employee benefits, and higher outside consulting costs on various customer service and information technology projects also contributed to the increase.

For the full year 2023, kWh sales volume decreased 1.5% from 2022 levels. Although electricity prices have decreased since the end of 2022, elevated prices over the past year have continued to impact electricity consumption. Another impact leading to a decrease of electricity sales is due to the Maui windstorm and wildfires. Maui had a decrease of 7.1% kWh sales volume in the fourth quarter of 2023 compared to the same period in 2022. Additionally, the continued adoption of energy efficiency measures and distributed energy resources contributed to the reduction of kWh sales.

Fuel costs have decreased through July 2023, gradually increased through November and then decreased through December. While the fuel costs are below 2022's peak, they remain elevated. Although the Utilities are able to pass through fuel costs to customers and have limited fuel cost exposure through a 2% fuel cost-risk sharing mechanism (approximately $3.7 million maximum exposure annually), higher customer bills could reduce customers' ability to pay timely or increase the risk of non-payment. In addition, the higher customer bills may lead the PUC to consider other actions to limit or delay any proposed increase in rates in order to mitigate the overall bill impact of rising fuel prices.

In December 2023, the consumer price index moderated to 3.4% from a peak of 9.1% in June 2022. In Hawaii, the November 2023 Urban Hawaii (Honolulu) Consumer Price Index (CPI) also declined from its peak, with an increase of 3.6% over the last 12 months. Under the PBR framework, inflation risk for the Utilities is partially mitigated by an Annual Rate Adjustment (ARA), which is based on a formula that includes a compounded and non-compounded portion.

- The compounded portion of the ARA adjustment includes an adjustment for the annual change in inflation based on the estimated change in Gross Domestic Product Price Index (GDPPI) for the upcoming year, less a predetermined annual productivity factor (currently set at zero), less a 0.22% customer dividend, applied to a basis equal to test year target revenues plus the RAM Revenue adjustments in effect prior to the implementation of PBR, plus the prior adjustment year's compounded portion of the ARA adjustment. The inflation factor percentage is the consensus projection of annual percentage change in GDPPI for the following calendar year published by Blue Chip Economic Indicators each October. For the 2023 calendar year, the forecasted 2023 GDPPI was 3.68% (net of the 0.22% customer dividend), measured in October 2022, and became effective in rates on January 1, 2023. For the 2024 calendar year, the forecasted 2024 GDPPI was 2.18% (net of the 0.22% customer dividend), measured in October 2023, and became effective in rates on January 1, 2024.
- The non-compounded portion of the ARA adjustment includes a subtractive component, representing the management audit savings commitment, or refund to customers, which was approved by the PUC for the years 2021 through 2025.

Customer accounts receivable decreased in 2023 by $44 million, or 15% since December 31, 2022. The decrease in accounts receivables was primarily driven by payment on a large delinquent commercial customer account, lower customer bills resulting from lower fuel prices, receipt of government and other program assistance, and higher cash receipts associated with increased disconnection efforts. At this time, while accounts receivable balances continue to remain elevated compared to pre-pandemic levels, the decrease in accounts receivable balances since the beginning of the year has reduced working capital requirements and benefited the Utilities' liquidity. See "Financial Condition—Liquidity and capital resources" for additional information.

In the second quarter of 2020, the PUC approved the deferral of certain COVID-19 related costs, such as higher bad debt expense, higher financing costs, non-collection of late payment fees, increased personal protective equipment costs, and sequestration costs for mission-critical employees. The Utilities deferred COVID-19 related costs through a PUC approved period that ended on December 31, 2021. In the second quarter of 2022, the Utilities filed an application to seek recovery of the COVID-19 deferred costs, not to exceed the amount of $27.8 million. On December 29, 2023, the PUC issued a decision and order (December 2023 D&O) approving the Utilities' request to recover the COVID-19 related deferred costs up to $8.8 million through the Z-factor. The PUC directed the Utilities to divide COVID-19 deferred costs evenly over a three-year recovery period from 2024 through 2026. Any additional collection efforts that reduce the amount to be recovered from the Utilities' customers shall be subtracted from the Year 3 recovery amount. As of December 31, 2023, the Utilities have recorded $8.7 million in regulatory assets for deferral of COVID-19 related costs. (See discussion under "Regulatory assets and liabilities - Regulatory assets for COVID-19 related costs" in Note 4 of the Consolidated Financial Statements).

Regulatory Developments. On November 15, 2021, President Biden signed into law the $1.2 trillion Infrastructure Investment and Jobs Act (IIJA), which includes approximately $550 billion of new federal spending to be allocated over the next five years through various programs. The funding will help the State of Hawaii achieve its sustainability goals, including renewable energy, resilience, and decarbonization, while also prioritizing economic development, equity and affordability. The Utilities are pursuing potential grant funding of projects under various programs as primary applicant as well as in partnership with other organizations. On August 29, 2023, the U.S. Department of Energy notified Hawaiian Electric that its application for $95 million in federal funds under IIJA has been recommended for award, subject to negotiation of the terms of financial assistance. See "Regulatory proceedings" in Note 4 of the Consolidated Financial Statements for additional discussions.

On August 16, 2022, President Biden signed into law the Inflation Reduction Act of 2022 (IRA) that provides for $258 billion in energy-related provisions over a 10-year period. The provisions of the IRA are intended to, among other things, lower gasoline and electricity prices, incentivize clean energy investment and promote reductions in carbon emissions. The Utilities are exploring clean energy tax incentives included in the IRA that may further reduce the Utilities' recovery under the EPRM and cost to customers.

The Utilities cannot predict the ultimate timing and success of securing funding from any federal government programs.

For a discussion regarding the impact of the Maui windstorm and wildfires on the Utilities' liquidity and capital resources, see discussion under "Financial Condition–Liquidity and capital resources."

Performance-based regulations. On December 23, 2020, the PUC issued a D&O (PBR D&O) approving a new performance-based regulation framework (PBR Framework). See "Regulatory proceedings" in Note 4 of the Consolidated Financial Statements.

Transition to a decarbonized and sustainable energy future. The Utilities are fully committed to leading and enabling pathways to a decarbonized and sustainable energy future for Hawaii. A sustainable energy future is one that focuses on delivering electricity safely, reliably and affordably, strengthening resilience and shifting away from fossil-fueled resources. The Utilities believe that a holistic approach to climate change is needed, working on both climate mitigation efforts along with climate adaptation efforts. Climate mitigation requires achieving the Utilities' decarbonization and renewable energy commitments, facilitating and promoting beneficial electrification, and deploying carbon removal and offsets among other levers to reduce statewide emissions.

In the fourth quarter of 2021, the Utilities outlined their Climate Action Plan to cut carbon emissions from power generation 70% by 2030, compared to a 2005 baseline. The emissions covered by this goal include stack emissions from generation owned by Hawaiian Electric and IPPs who sell electricity to the Utilities. Since that time, delays and cancellations in the commercial operation of new renewable third-party generation resources and higher costs as a result of supply chain disruptions and inflationary pressures, as well as federal policies related to solar panel imports have slowed the pace of progress toward reducing GHG emissions. Also, see the "Developments in renewable energy efforts—New renewable PPAs" section below. The downgrade of Hawaiian Electric's credit ratings after the Maui windstorm and wildfires is anticipated to be an additional impediment to completion of new renewable energy and storage projects. As a result of these challenges, the Utilities expect the planned 70% reduction in carbon emissions to be achieved later than the original 2030 target date. However, the Utilities will continue to replace significant amounts of fossil fuel generation with renewable energy between now and 2030 and expect to meet or exceed the State of Hawaii's RPS goals.

Hawaiian Electric has also committed to achieving net zero carbon emissions from power generation by 2045 or sooner. While the timing of the Utilities' carbon reduction goals will be adjusted, key elements of the 2030 plan have already been completed or remain on track to be completed by 2030, including the closure of the state's last coal-fired IPP plant that occurred in September 2022, increasing rooftop solar by more than 50% over 2021 levels, retiring six fossil fuel generating units, increasing grid-scale and customer-owned storage, expanding geothermal resources, and creating customer incentives for using clean, lower-cost energy at certain times of the day and using less fossil-fueled energy at night. The retirement of fossil-fueled generating units is consistent with state policy and supported by Hawaii State law.

On September 1, 2022, the last coal-fired IPP plant in the state, providing approximately 10% of Oahu's generation, ceased operations, removing a significant source of GHG emissions from the Utilities' generation mix. In advance of the retirement of the coal-fired IPP plant, the Utilities developed plans, including contingency plans, to ensure reliable service through the transition period. These plans include the anticipated addition of renewable energy/storage projects, reserve capacity from existing generation sources, the acceleration of maintenance work during periods with anticipated higher reserve levels, and multiple demand response/DER programs. For example, from the Stage 1 renewable RFP, a 39 megawatt (MW) solar-plus-storage project reached commercial operations in mid-2022 and a 36 MW Stage 1 solar-plus-storage project reached commercial operations in early 2023. From the Stage 2 renewable RFP, a 185 MW standalone storage facility reached commercial operations in December 2023. In addition, in April 2023, a 30 MW Stage 1 solar-plus-storage project on Hawaii Island reached commercial operations.

Hawaii's renewable portfolio standard law requires electric utilities to meet an RPS of 30%, 40%, 70% and 100% by December 31, 2020, 2030, 2040 and 2045, respectively. Hawaii law has also established a target of sequestering more atmospheric carbon and greenhouse gases than emitted within the state by 2045. The Utilities' strategies and plans are fully aligned in meeting these targets (see also Integrated Grid Planning below).

The Utilities have made significant progress on the path to clean energy and have been successful in achieving RPS goals. To date the Utilities have met all of the statutory RPS goals, including exceeding the latest milestone RPS target of 30% for 2020, where it achieved an RPS of 34.5%. In July 2022, Governor Ige signed Act 240 (H.B.2089), that amended the RPS calculation from renewable energy as a percentage of sales to renewable energy as a percentage of total generation. The amended RPS calculation results in a lower calculated percentage than the amount calculated under the previous methodology. For example, the 2022 RPS achieved under the revised RPS calculation was 31.8% versus 39.1% under the prior method. The change in the definition is effective from July 2022 forward and will require that the Utilities acquire more renewable energy than under the previous RPS calculation to comply with the RPS milestones; however, the Utilities expect to continue to meet the RPS milestones under the amended RPS law. (See "Developments in renewable energy efforts" below).

If the Utilities are not successful in meeting the RPS targets as mandated by law, the PUC could assess a penalty of $20 for every megawatt-hour (MWh) that an electric utility is deficient. Based on the level of total generation in 2023, a 1% shortfall in meeting the 2030 RPS requirement of 40% would translate into a penalty of approximately $2.1 million. The PUC has the discretion to reduce the penalty due to events or circumstances that are outside an electric utility's reasonable control, to the extent the event or circumstance could not be reasonably foreseen and ameliorated. In addition to penalties under the RPS law, failure to meet the mandated RPS targets would be expected to result in a higher proportion of fossil fuel-based generation than if the RPS target had been achieved, which in turn would be expected to subject the Utilities to limited commodity fossil fuel price exposure under a fuel cost risk-sharing mechanism. The fuel cost risk-sharing mechanism apportions 2% of the fuel cost risk to the utilities (and 98% to ratepayers) and has a maximum exposure (or benefit) of $3.7 million. Conversely, the Utilities have incentives under PIMs that provide a financial reward for accelerating the achievement of renewable generation as a percentage of total generation, including customer supplied generation. The Utilities may earn a reward for the amount of renewable generation above the interpolated statutory RPS goal at $15/MWh in 2023 and $10/MWh for the remainder of the multi-year rate period.

The Utilities are fully aligned with, and supportive of, state policy to achieve a decarbonized future and have made significant progress in reducing emissions through renewable energy and electrification. This alignment with state policy is reflected in management compensation programs and the Utilities' long-range plans, which include aspirational targets in order to catalyze action and accelerate the transition away from fossil fuels throughout its operations at a pace more rapid than dictated by current law. The long-range plans, including aspirational targets, serve as guiding principles in the Utilities' continued transformation, and are updated regularly to adapt to changing technology, costs and other factors. While there is no financial penalty for failure to achieve the Utilities' long-range aspirational objectives, the Utilities recognize that there are environmental and social costs from the continued use of fossil fuels.

The State of Hawaii's policy is supported by the regulatory framework and includes a number of mechanisms designed to maintain the Utilities' financial stability during the transition toward the State's decarbonized future. Under the sales decoupling mechanism, the Utilities are allowed to recover from customers, target test year revenues, independent of the level of kWh sales, which have generally trended lower over time as privately-owned DER have been added to the grid and energy efficiency measures have been put into place. Other regulatory mechanisms under the PBR framework reduce some of the regulatory lag during the multi-year rate plan (MRP), such as the annual revenue adjustment to provide annual changes in utility revenues, including inflationary adjustments, and the exceptional project recovery mechanism, which allows the Utilities to recover and earn on certain approved eligible projects placed into service. See "Regulatory proceedings" in Note 4 of the Consolidated Financial Statements.

Integrated Grid Planning. Achieving high levels of renewable energy and a carbon free electric system will require modernizing the grid through coordinated energy system planning in partnership with local communities and stakeholders. To accomplish this, the Utilities are implementing an innovative systems approach to energy planning intended to yield the most cost-effective renewable energy and decarbonization pathways that incorporates customer and stakeholder input.

The Integrated Grid Planning (IGP) process utilizes an inclusive and transparent stakeholder engagement model to provide an avenue for interested parties to engage with the Utilities and contribute meaningful input throughout the IGP process. The IGP Stakeholder Council, Technical Advisory Panel and Working groups have been established and meet regularly to provide feedback and input on specific issues and process steps in the IGP. On May 12, 2023, the Utilities submitted their final Integrated Grid Plan: A pathway to a clean energy future for stakeholder and public comments. The Integrated Grid Plan proposes actionable steps to decarbonize the electric grid on the State of Hawaii's timeline, with a flexible framework that can adapt to future technologies. The Integrated Grid Plan is the culmination of more than five years of partnership with stakeholders and community members across the islands. Together, they forecasted future energy needs and identified strategies to meet Hawaii's growing energy demand with 100% renewable resources.

Demand response programs. Pursuant to PUC orders, the Utilities are developing an integrated Demand Response (DR) Portfolio Plan that will enhance system operations and reduce costs to customers. The reduction in cost for the customer will take the form of either rates or incentive-based programs that will compensate customers for their participation individually, or by way of engagements with turnkey service providers that contract with the Utilities to aggregate and deliver various grid services on behalf of participating customers and their distributed assets.

On June 9, 2021, the PUC issued an order providing guidance to the third Grid Service RFP filed on February 23, 2021. The proposed Grid Service RFP focused only on Oahu and is seeking 132 MW of grid services with focus on capacity reduction (60 MW) similarly in response to the potential reserve shortfall from the AES coal plant retirement that occurred on September 1, 2022. The Utilities executed a Grid Services Purchase Agreements (GSPA) for a total grid services amount of 97.4 MW and filed with the PUC to request approval on March 16, 2022. On July 12, 2023, the PUC approved the GSPA with modifications. The Utilities amended the GSPA and filed with the PUC on December 29, 2023.

On June 8, 2021, the PUC approved the new program, Emergency Demand Response Program (EDRP), a battery storage incentive program to dispatch electricity between 6 p.m. to 8 p.m. daily from participating residential and commercial customers, to address the potential reserve shortfalls following the AES coal plant retirement. On December 12, 2023, the Utilities have reached the cap and approved the applications totaling approximately 40 MW on Oahu. On December 20, 2023, the PUC approved the extension of the Battery Bonus application to be accepted to December 31, 2023 beyond the 40 MW cap.

On March 30, 2022, the Utilities filed with the PUC to request expanding the EDRP for up to 15 MW on the island of Maui and received PUC approval on May 20, 2022. The EDRP on Maui became effective as of June 1, 2022. Subsequently, on June 23, 2022, the PUC approved the cost recovery of the additional incentives for both Oahu and Maui through the Demand-Side Management Surcharge. As of December 31, 2023, the Utilities have received and approved the applications totaling approximately 6.5 MW on Maui.

On October 31, 2022, the PUC issued an order, directing the Utilities to solicit comments from all interested parties and stakeholders on the Utilities' Draft Grid Services RFP filed on June 30, 2022. The proposed Draft Grid Services RFP focused only on Maui and is seeking 15 MW of grid services. Hawaiian Electric issued the RFP on February 1, 2023 and bids were due on February 1, 2024.

Grid modernization. The overall goal of the Grid Modernization Strategy is to deploy modern grid investments at an appropriate priority, sequence and pace to cost-effectively maximize flexibility, minimize the risk of redundancy and obsolescence, deliver customer benefits and enable greater DER and renewable energy integration. Under the Grid Modernization Strategy, the Utilities expect that new technology will help increase adoption of private rooftop solar and make use of rapidly evolving products, including storage and advanced inverters. On March 25, 2019, the PUC approved a plan for the Utilities to implement Phase 1 of their Grid Modernization Strategy, which is the proportional deployment of advanced metering infrastructure (AMI). On February 28, 2022, the PUC expanded the scope of Phase 1 to the full service territory with a completion date set for the third quarter of 2024. The estimated cost of full deployment (including proportional deployment) is approximately $143 million in capital and deferred software cost and is expected to be incurred over five years. As of December 31, 2023, approximately $116 million of capital and deferred software cost has been incurred to date under Phase 1 and is currently being recovered under the MPIR mechanism until such costs are included in base rates. On June 24, 2022, the PUC approved with certain conditions the Utilities' request to aggregate the per-meter and network cost caps and to recover O&M costs associated with full-service territory AMI deployment under the MPIR mechanism. As of December 31, 2023, the Utilities have deployed about 363,000 advanced meters, servicing approximately 77% of total customers.

The Utilities filed an application with the PUC on September 30, 2019 for an Advanced Distribution Management System (ADMS) as part of Phase 2 of their Grid Modernization Strategy implementation. However, on December 30, 2019, the PUC suspended the Utilities' application for the ADMS pending the Utilities' filing of a supplemental application for the broad deployment of field devices. This supplement and update to the Grid Modernization Strategy Phase 2 field devices application was filed on March 31, 2021. A PUC order was issued on April 27, 2021, unsuspending and resuming consideration of the Phase 2 Application. The Utilities filed the reply statement of position on October 15, 2021, completing the discovery phase of the docket. On November 16, 2021, the PUC suspended the Utilities' ADMS and Phase 2 field device application to focus the Utilities' attention on completing Phase 1. The Utilities filed a Motion for Reconsideration with the PUC in response to the suspension, but the motion was denied. The PUC subsequently clarified that the Utilities may resume the Phase 2 docket no earlier than six months before Phase 1 is scheduled to be completed in the third quarter of 2024. Resumption of the Phase 2 proceeding would likely commence six months prior to the scheduled completion date selected by the PUC. On April 17, 2023, the Utilities filed a motion with the PUC, requesting the suspended docket to be reopened and to allow the Utilities to file an updated and supplemented application for updated project costs. The estimated cost for the implementation of Phase 2 over six years, which includes capital, deferred software costs and O&M costs, is $113 million. On May 3, 2023, the PUC granted the motion to resume the docket, and hosted a technical conference on the updated application on May 19, 2023. The Utilities filed the reply statement of position on September 28, 2023, completing the discovery phase of the docket. On January 19, 2024, the Utilities hosted a Technical Conference with the PUC.

Community-based renewable energy. In December 2017, the PUC adopted a community-based renewable energy (CBRE) program framework which allows customers who cannot, or chose not to, take advantage of private rooftop solar to receive the benefits of renewable energy to help offset their monthly electric bills and support clean energy for Hawaii. The program has two phases.

The first phase, which commenced in July 2018, totaling 8 MW of solar photovoltaic (PV) only with one credit rate for each island, closed on April 9, 2020. Two phase 1 projects (28.32 kW on Maui and 270 kW on Oahu) have been operational for three years and one Phase 1 project (3,000 kW on Oahu) achieved commercial operations on October 1, 2023. Two additional phase 1 projects expect to become operational in the first quarter of 2024 (Hawaii Island: 750kW and Molokai: 250kW).

The second phase, which commenced on April 9, 2020 and subsequently expanded on July 27, 2021, allows over 250 MW across all Hawaiian Electric service territories in two tranches for small (under 250 kW), mid-tier and large system sizes to encourage a variety of system sizes. To provide opportunities for low-to-moderate income (LMI) customers to participate in the program, 23 MW of capacity for dedicated-LMI projects were awarded on November 15, 2022 through three island specific RFPs for Oahu, Maui and Hawaii Island. LMI projects do not have a size cap nor do they decrease the 250 MW capacity available to other projects. The dedicated-LMI projects are expected to become operational in 2025.

The Utilities issued the CBRE Tranche 1 RFPs for Oahu, Maui and Hawaii on April 14, 2022. The RFPs closed on August 17, 2022, and proposals were evaluated. Tranche 1 projects, which are greater than or equal to 250 kW, were awarded on February 22, 2023. The Tranche 1 projects are expected to become operational in 2025 or 2026.

For Lanai, the Utilities combined the previously issued Variable Renewable Dispatchable Generation Paired with Energy Storage RFP and the CBRE RFP to optimize the benefits of procuring renewable energy, spur development and increase the likelihood of success of the CBRE Program on Lanai. See "Developments in renewable energy efforts–Requests for renewable proposals, expressions of interest, and information" for additional information.

One CBRE proposal for Lanai was selected but negotiations were terminated on June 15, 2022. With the concurrence of the Independent Observer, a replacement proposal was selected on July 1, 2022. On July 25, 2022, the Utilities announced the selection of a new developer for the Lanai CBRE RFP. On September 21, 2022, the Utilities were informed by Pulama Lanai of a project being planned on Lanai to remove the two large resorts from the grid, which represent approximately 40% of the load of the island and raises great uncertainty around the future energy needs for Lanai. On September 28, 2022, the Utilities notified the PUC that ongoing negotiations for the Lanai CBRE project would continue, but the Utilities did not execute a PPA at this time given the uncertainty due to the Pulama Lanai notification. The parties are currently exploring options to move forward with the project. On Molokai, proposals were only received from a single community co-op group. After evaluation of these proposals and with concurrence of the independent observer, the Utilities filed a letter on September 9, 2022, proposing to close the Molokai CBRE RFP and to work with the lone bidder to improve certain aspects of its two proposed projects outside of the RFP process for the benefit of the residents of Molokai. After successful negotiations, two contracts for solar plus storage facilities were executed and on September 29, 2023, the Utilities filed two applications with the PUC requesting approval of the contracts. On January 8, 2024, the PUC approved the two contracts.

The Utilities CBRE Phase 2 Rule 29 became effective on March 10, 2022. The Utilities are currently accepting project applications for small CBRE projects less than 250 kW in size. The PUC reserved 45 MW as well as a small amount of unallocated capacity from Phase 1 for small projects in Phase 2 on Oahu, Maui and Hawaii Island. The Utilities have developed a CBRE Portal where Subscriber Organizations can apply for small project capacity and manage subscribers for all CBRE projects in the program. Customers can also use the CBRE Portal to solicit subscription quotes, compare, and subscribe to a project once the Subscriber Organization has added their project to the portal.

Microgrid services tariff proceeding. In enacting Act 200 of 2018, the Hawaii legislature found that Hawaii's residents and businesses were vulnerable to disruptions in the islands' energy systems caused by extreme weather events or other disasters, and stated its belief that the use of microgrids would build energy resiliency into Hawaii's communities, thereby increasing public safety and security. The purpose of Act 200 was therefore to encourage and facilitate the development and use of microgrids through the establishment of a standard microgrid services tariff. In July 2018, pursuant to Act 200, the PUC opened a proceeding to investigate the establishment of a microgrid services tariff. In August 2019, the PUC issued an order prioritizing items for resolution in the docket and directed the Parties to establish working groups (the Working Group) to address issues identified by the PUC.

On May 27, 2021, the Utilities filed the Microgrid Service Tariff. On September 21, 2021, the PUC provided guidance for Phase 2 of the Microgrid Tariff proceeding, specifically identifying the objective for Phase 2 to promote self-sufficiency and resilience among microgrid project operators, as well as to further streamline the Microgrid Services Tariff where applicable. Furthermore, the PUC instructed Parties to recommend priority topics, along with supporting rationale to better inform the topics that will be discussed during this phase of the proceeding, which the parties submitted by October 21, 2021.

On April 1, 2022, the PUC established its Prioritized Issues for Resolution for Phase 2 of the Microgrid proceeding, which includes the following: 1) Microgrid Compensation and Grid Services; 2) Utility Compensation; 3) Customer Protection and Related Considerations; 4) Interconnection; and 5) Working Group coordination with related microgrid and resilience Initiatives at Hawaiian Electric and government agencies. Furthermore, the PUC established a procedural schedule to consist of quarterly status conference meetings with the PUC, a Phase 2 Working Group Report, draft of a revised Microgrid Service Tariff, Party comments to the proposed Microgrid Service Tariff, followed by a PUC D&O.

On June 30, 2022, the PUC provided further guidance to the Working Group to prioritize discussion of the microgrid types in the following order: 1) Hybrid Microgrid - Third Party Developer using Utility lines/infrastructure; 2) Hybrid Microgrid - Utility Project with Partners; and 3) Customer Microgrid. Additionally, the PUC instructed the Working Group to discuss microgrid compensation and continue the involvement of microgrid developers in working group meetings.

The Working Group met from April 2022 through October 2022 to discuss the PUC's objectives and respond to the Phase 2 priority issues. On October 31, 2022, the PUC issued a guidance letter and advised that the Working Group propose a new timeline for the Report. The Utilities and the Consumer Advocate filed a joint letter with a revised timeline on November 10, 2022. On November 21, 2022, the PUC issued an order to suspend the Phase 2 procedural schedule while it reviews the joint letter.

Decoupling. See "Decoupling" in Note 4 of the Consolidated Financial Statements for a discussion of decoupling.

Regulated returns. As part of the PBR Framework's annual review cycle, the Utilities track their rate-making ROACEs as calculated under the earnings sharing mechanism, which includes only items considered in establishing rates. At year-end, each utility's rate-making ROACE is compared against its ROACE allowed by the PUC to determine whether earnings sharing has been triggered. The D&O in the PBR proceeding modified the earnings sharing mechanism to a symmetric arrangement. Effective with annual earnings for 2021, the earnings sharing will be triggered for achieved rate-making ROACE outside of a 300 basis points dead band above and below the current authorized rate-making ROACE of 9.5% for each of the Utilities. Earnings sharing credits or recoveries will be included in the biannual report (formally known as annual decoupling filing) to be filed with the PUC in the spring of the following year. Results for 2023, 2022, and 2021 did not trigger the earnings sharing mechanism for the Utilities.

On August 31, 2023, the PUC issued an order temporarily suspending the ESM until further notice. The intent of the order is to address the unintended consequence of customers potentially bearing the costs associated with the Maui windstorm and wildfires through the operation of the ESM without prior PUC review.

Actual and PUC-allowed returns, as of December 31, 2023, were as follows:

%	Rate-making Return on rate base*			ROACE**			Rate-making ROACE***		
Year ended December 31, 2023	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Hawaiian Electric	Hawaii Electric Light	Maui Electric
Utility returns	7.34	6.77	4.57	8.96	8.09	4.53	9.28	8.27	4.46
PUC-allowed returns	7.37	7.52	7.43	9.50	9.50	9.50	9.50	9.50	9.50
Difference	(0.03)	(0.75)	(2.86)	(0.54)	(1.41)	(4.97)	(0.22)	(1.23)	(5.04)

* Based on recorded operating income and average rate base, both adjusted for items not included in determining electric rates.

** Recorded net income divided by average common equity.

*** ROACE adjusted to remove items not included by the PUC in establishing rates, such as incentive compensation.

The gap between PUC-allowed ROACEs and the ROACEs achieved is primarily due to the exclusion of certain expenses from rates (for example, incentive compensation and charitable contributions), and depreciation, O&M expense and return on rate base that are in excess of what is currently being recovered through rates (the last rate case plus authorized RAM adjustments and ARA revenues).

Results of operations.

2023 vs. 2022

2023	2022	Increase (decrease)		(dollars in millions, except per barrel amounts)
$ 3,270	**$ 3,409**	**$ (139)**		**Revenues.** Net decrease largely due to:
			$ (134)	lower kWh purchased and lower PPAC revenue, partially offset by higher purchased power energy prices[1]
			(60)	lower fuel oil prices, partially offset by higher kWh generated[2]
			(3)	lower PIMs
			2	additional pole attachment fee revenue
			3	higher DSM revenue
			5	higher MPIR revenue
			7	higher fuel cost risk-sharing adjustment (reward in 2023)
			40	higher revenue from ARA adjustments
1,211	**1,266**	**(55)**		**Fuel oil expense**.[2] Net decrease largely due to lower fuel oil prices, offset in part by higher kWh generated
672	**794**	**(122)**		**Purchased power expense**[1,2]. Net decrease largely due to lower kWh purchased and lower AES charges due to its closure on September 1, 2022, partially offset by the addition of Stage 1 and Stage 2 solar-plus-storage projects and higher purchased power energy prices
534	**498**	**36**		**Operation and maintenance expense**. Net increase largely due to:
			13	higher transmission and distribution operation and maintenance expense
			11	labor and associated costs for the Maui windstorm and wildfires response
			4	increased labor and employee benefits costs
			3	higher outside services for Customer Service Support Improvement and Integrated Grid Planning
			3	more station maintenance work performed
			3	higher facilities expenses
			2	higher legal and other fees associated with environmental matters
			(3)	lower scope of generating facility overhauls performed
551	**553**	**(2)**		**Other expenses**. Decrease due to lower revenue taxes, partially offset by higher depreciation expense due to increasing investments to integrate more renewable energy and improve customer reliability and system efficiency and higher payroll taxes due to higher unemployment tax rate
302	**299**	**3**		**Operating income**. Increase largely due to ARA, higher fuel cost risk-sharing adjustment, and higher MPIR revenue, offset in part by higher operation and maintenance expenses and higher depreciation expenses
247	**241**	**6**		**Income before income taxes**. Increase largely due to higher operating income, higher investment interest income, and higher AFUDC related to increased capital expenditures, offset by higher interest expense due to increased borrowings
194	**189**	**5**		**Net income for common stock**. Increase due to higher income before income taxes. See below for effective tax rate explanation
8.2%	8.2%	—%		Return on average common equity
$126.73	$141.49	$ (14.76)		Average fuel oil cost per barrel
$ 8,227	$ 8,354	$ (127)		Kilowatt-hour sales (millions) [3]
2,564	2,511	53		Number of full-time employees (at December 31)

1 The rate schedules of the electric utilities currently contain PPACs through which changes in purchased power expenses (except purchased energy costs) are passed on to customers.

2 The rate schedules of the electric utilities currently contain ECRCs through which changes in fuel oil prices and certain components of purchased energy costs are passed on to customers.

[3] kWh sales were lower when compared to prior year. The decrease in sales can be attributed to impacts from the Maui windstorm and wildfires which resulted in widespread damage to the Lahaina community. In addition, the continued adoption of energy efficiency measures and distributed energy resources contributed to the reduction in kWh sales.

Hawaiian Electric's effective tax rate (combined federal and state income tax rates) in 2023 and 2022 was 21%.

For a discussion of 2021 results, please refer to the "Results of operations" section in Item 7, "Management Discussion and Analysis of Financial Condition and Results of Operations—Electric utility," in the Company's 2022 Form 10-K.

For more information of the Utilities' incremental expenses related to the Maui windstorm and wildfires for the year ended December 31, 2023, see "Results of operations—Maui windstorm and wildfires related expenses, net" in HEI's MD&A.

The net book value (cost less accumulated depreciation) of utility property, plant and equipment (PPE) as of December 31, 2023 amounted to $5.4 billion, of which approximately 21% related to generation PPE, 64% related to transmission and distribution PPE, and 15% related to other PPE. Approximately 6% of the total net book value relates to generation PPE that has been deactivated or that the Utilities plan to deactivate or decommission.

Regulatory proceedings. On December 23, 2020, the PBR D&O was issued, establishing the PBR Framework. The PBR Framework implemented a five-year multi-year rate period (MRP), during which there will be no general rate case applications. In the fourth year of the MRP, the PUC will comprehensively review the PBR Framework to determine if any modifications or revisions are appropriate. See also "Regulatory proceedings" in Note 4 of the Consolidated Financial Statements.

Developments in renewable energy efforts. The Utilities' renewable energy goals depend, in large part, on the success of renewable projects developed and operated by independent power producers. Beginning in 2017, the Utilities embarked on an ambitious procurement effort, selecting multiple solar plus storage projects to help reach the Utilities renewable portfolio standards goals as well as to assist the Utilities in retiring fossil fuel generation. Several of the recently procured projects have experienced delays as a result of supply chain disruptions caused by impacts from the COVID-19 pandemic, solar product detentions at U.S. ports of entry ordered by the U.S. Customs and Border Protection agency, and unforeseen site conditions which resulted in unanticipated project costs or in some cases the inability to effectively use previously identified project sites. These impacts have resulted in five Stage 2 projects declared null and void by the independent power producers and one Stage 1 project and one Stage 2 project mutually terminating their PPAs with the Utilities. Projects have also indicated potential impacts from the investigation launched by the U.S. Department of Commerce on March 28, 2022, in response to a request by Auxin Solar Inc. in regard to solar panel imports. On June 6, 2022, President Biden created a bridge to temporarily facilitate U.S. solar deployers' ability to source certain imported solar modules and cells free of certain duties for 24 months in order to ensure the U.S. has access to a sufficient supply of solar modules to meet electricity generation needs. The Utilities have negotiated amendments with several project developers regarding requests to increase previously approved prices and extend guaranteed commercial operations dates for those projects in order to ensure their viability given the impact of these recent market conditions. All of these amendments have been approved. Significant project delays or failures of these projects increase the risk of the Utilities not meeting the renewable portfolio standards or other climate related goals, eligibility for performance incentive mechanisms associated with the speed of increasing renewable generation, and the ability to retire fossil fuel units. Developments in the Utilities' efforts to further their renewable energy strategy include renewable energy projects discussed in Note 4 of the Consolidated Financial Statements and the following:

New renewable PPAs.

- On November 16, 2021, Hawaii Electric Light and Hawi Renewable Development, LLC (HRD) entered into an Amended and Restated Power Purchase Agreement (HRD ARPPA). Under the HRD ARPPA, HRD would make modifications to upgrade and repower the existing wind facility to enable it to continue to provide up to 10.56 MW of energy at a cost savings for customers. The HRD ARPPA is delinked from the price of fossil fuel and extends the term of the existing PPA by 20 years following the commercial operations date. On December 17, 2021, Hawaii Electric Light filed an application for approval of the HRD ARPPA, requesting a decision no later than June 15, 2022. On January 11, 2023, Hawaii Electric Light and HRD entered into a First Amendment to the HRD ARPPA (First Amendment). The First Amendment includes an extension of the Guaranteed Commercial Operations Date (GCOD) by 26 months to accommodate the delayed delivery of components, and a temporary price increase until HRD recovers its estimated increased costs specified in the First Amendment. The Amendment was conditionally approved by the PUC on July 12, 2023.
- On December 31, 2019, Hawaii Electric Light and Puna Geothermal Ventures entered into an Amended and Restated Power Purchase Agreement (PGV ARPPA). The PGV ARPPA extends the term of the existing PPA by 25 years to 2052, expands the firm capacity of the facility to 46 MW and delinks the pricing for energy delivered from the facility from fossil fuel prices to reduce cost to customers. On March 16, 2022, the PUC issued a D&O, approving the PGV ARPPA, subject to conditions, that include requiring completion of a final environmental review prior to construction.

On March 28, 2022, Puna Pono Alliance filed a Motion for Reconsideration seeking reconsideration, modification and/or vacation of the D&O. On June 6, the PUC denied Puna Pono's Motion for Reconsideration. PGV notified the Utilities that changes in market conditions that transpired since the terms of the PGV ARPPA were negotiated impacted the financial viability of the Project, and that an amendment to the PGV ARPPA was necessary to mitigate the impacts. On March 27, 2023, the Utilities and PGV executed the First Amendment to the PGV ARPPA which increases the capacity payment and extends the GCOD. An application requesting approval of the First Amendment to the PGV ARPPA was filed on April 4, 2023. On June 13, 2023, PGV notified the Utilities of concerns of its ability to timely deliver on the terms of the ARPPA. PGV has been working to re-establish its capacity generation and has continued drilling and plans to drill additional wells, however, this process has taken longer than anticipated and PGV has become increasingly concerned about timely achieving the Contract Firm Capacity of 46 MW. In light of receiving this information and to allow the Utilities and PGV to determine the best path forward, on July 6, 2023 the Utilities asked the PUC to put the procedural schedule on hold for approval of the First Amendment to the PGV ARPPA. In order to address PGV's concerns, the parties executed a Second Amendment to the PGV ARPPA, which among other things lowered the capacity needed to reach commercial operations and preserves the full contract capacity, effectuating a partial commissioning. On October 2, 2023 the Utilities filed a letter requesting the docket be reopened and seeking approval of the First and Second Amendments to the PGV ARPPA by the end of 2023. On December 29, 2023, the PUC issued a decision and order conditionally approving the First and Second Amendments to the PGV ARPPA. As directed, on January 12, 2024, the Utilities filed a supplemental brief explaining its request for cost recovery.

- Under a request for proposal process governed by the PUC and monitored by independent observers, in February 2018, the Utilities issued Stage 1 Renewable RFPs for 220 MW of renewable generation on Oahu, 50 MW of renewable generation on Hawaii Island, and 60 MW of renewable generation on Maui. To date, the Utilities filed seven requests with the PUC for approval of amendments related to previously-approved PPAs for changes in pricing and/or guaranteed commercial operations dates to support completion of the projects while maintaining system reliability. The PUC has approved all seven amendments. To date, three projects reached commercial operations. See also "Purchase commitments" in Note 4 of the Consolidated Financial Statements.

With one PPA mutually terminated on November 17, 2023, a summary of the remaining seven PPAs is as follows:

Utilities	Number of contracts	Total photovoltaic size (MW)	BESS Size (MW/MWh)	Guaranteed commercial operation dates	Contract term (years)	Total projected annual payment (in millions)
Hawaiian Electric	4	139.5	139.5/558	7/31/22, 1/11/23, 1/20/23* & 10/31/24	20 & 25	$ 34.0
Hawaii Electric Light	2	60	60/240	10/11/24 & 4/21/23	25	19.2
Maui Electric	1	60	60/240	5/31/24	25	13.2
Total	7	259.5	259.5/1038			$ 66.4

* Project delays have resulted in Guaranteed Commercial Operations Date being missed.

The Utilities have received PUC approvals to recover the total projected annual payment of $66.4 million for the seven PPAs through the PPAC to the extent such costs are not included in base rates.

- In continuation of their February 2018 request for proposal process, the Utilities issued their Stage 2 Renewable RFPs for Oahu, Maui and Hawaii Island and Grid Services RFP on August 22, 2019. To date, the Utilities had filed 11 PPAs. Additionally, two GSPAs and two applications for commitments of funds for capital expenditures for approval of the utility self-build projects were filed with the PUC. Of the 11 filed PPAs, six PPAs were declared null and void by the independent power producers and one PPA was mutually terminated. The four remaining projects have received PUC approval. To date, the Utilities filed three requests with the PUC for approval of amendments related to previously-approved PPAs for changes in pricing and/or guaranteed commercial operations dates to support completion of the projects while maintaining system reliability. The PUC has approved all three amendments. The two GSPAs were approved by the PUC in December 2020. On December 22, 2023, the PUC approved the Utilities' Waena Battery Energy Storage System (BESS) project. The one remaining Utility Self-Build project is still pending PUC approval. On December 19, 2023, Kapolei Energy Storage project on Oahu reached commercial operations. See also "Commitments" in Note 4 of the Consolidated Financial Statements.

A summary of the remaining four approved Stage 2 PPAs, is as follows:

Utilities	Number of contracts	Total photovoltaic size (MW)	BESS Size (MW/MWh)	Guaranteed commercial operation dates	Contract term (years)	Total projected annual payment (in millions)
Hawaiian Electric	3	79	79 / 443	5/17/24, 9/1/2024, & 4/9/2024	20 & 25	$ 31.4
Hawaiian Electric	1 *	N/A	185 / 565	12/19/2023	20	24.0
Total	4	79	264 / 1,008			$ 55.4

* See further discussion under "Review of Interconnection Process and Kapolei Energy Storage Power Purchase Agreement" below.

The total projected annual payment of $55.4 million for these PPAs will be recovered through the PPAC to the extent such costs are not included in base rates.

A summary of the GSPAs that were approved by PUC in December 2020 is as follows:

Utilities	Fast Frequency Response - 1 (MW)	Fast Frequency Response - 2 (MW)	Capacity - Load Build (MW)	Capacity - Load Reduction (MW)
Hawaiian Electric	—	26.7	14.5	19.4
Hawaii Electric Light	6.0	—	3.2	4.0
Maui Electric	6.1	—	1.9	4.7
Total	12.1	26.7	19.6	28.1

A summary of the utility self-build projects is as follows:

Utilities	Number of contracts	BESS Size (MW/MWh)	Guaranteed commercial operation dates
Hawaii Electric Light	1 *	12/12	12/30/22
Maui Electric	1	40/160	11/30/26
Total	2	52/172	

* The Utility Self-Build project was denied by the PUC on May 25, 2022 and the Utilities have filed a motion for reconsideration with the PUC. On January 26, 2024, the PUC granted the Utility's November 15, 2023 request to suspend the docket to focus on identified priorities. The Utility will provide the PUC with an updated assessment of the project by April 30, 2024.

Tariffed renewable resources.

- As of December 31, 2023, there were approximately 611 MW, 135 MW and 146 MW of installed distributed renewable energy technologies (mainly PV) at Hawaiian Electric, Hawaii Electric Light and Maui Electric, respectively, for tariff-based private customer generation programs, namely Standard Interconnection Agreement, Net Energy Metering, Net Energy Metering Plus, Customer Grid Supply, Customer Self Supply, Customer Grid Supply Plus and Interim Smart Export. As of December 31, 2023, an estimated 40% of single-family homes on the islands of Oahu, Hawaii and Maui have installed private rooftop solar systems, and approximately 23% of the Utilities' total customers have solar systems.
- The Utilities began accepting energy from feed-in tariff projects in 2011. As of December 31, 2023, there were 44 MW, 2 MW and 6 MW of installed feed-in tariff capacity from renewable energy technologies at Hawaiian Electric, Hawaii Electric Light and Maui Electric, respectively.

Biofuel sources.

- On June 30, 2021, the Utilities issued an RFP for all fuels, including biodiesel, for supply commencing January 1, 2023. The Utilities and Pacific Biodiesel Technologies, LLC (PBT) signed an agreement on December 13, 2021 for supply of biodiesel on all islands commencing January 1, 2023, which was approved by the PUC on December 1, 2022. Hawaiian Electric also has a spot buy contract with PBT to purchase additional quantities of biodiesel at or below the price of diesel. Some purchases of "at parity" biodiesel have been made under the spot purchase contract, which was extended through June 2025.
- Hawaiian Electric has a contingency supply contract with REG Marketing & Logistics Group, LLC to also supply biodiesel to any generating unit on Oahu in the event PBT is not able to supply necessary quantities. This contingency contract has been extended to November 2024, and will continue with no volume purchase requirements.

Requests for renewable proposals, expressions of interest, and information.

- On November 22, 2021, CBRE RFPs for Molokai and Lanai were opened. The RFP for Lanai sought a single PV paired with storage project, which included a 3 MW portion, reserved for CBRE. The Lanai RFP closed on February 14, 2022 and the Molokai RFP closed on March 1, 2022. A project was selected in the Lanai RFP but negotiations were terminated. On July 1, 2022, a replacement project was selected and negotiations commenced. The RFP for Molokai sought 2.75 MW of new PV paired with storage projects for CBRE generation. No projects were selected in the Molokai RFP. However, with the concurrence of the independent observer, the Utilities worked with the lone bidder outside of the RFP process and filed two PPAs with a total of 2.45 MW of PV paired with 11.1 MWh of battery energy storage on September 29, 2023. The PUC approved both PPAs on January 8, 2024. See "Transition to a decarbonized and sustainable energy future—Community-based renewable energy" for additional information.
- On March 17, 2022, the CBRE LMI RFPs for Oahu, Maui and Hawaii were opened and proposals were received. In November 2022, seven projects were selected consisting of one standalone PV project on Oahu, three paired PV with storage projects on Maui, and three paired PV with storage projects on Hawaii Island. The Utilities opened the CBRE Tranche 1 RFPs for Oahu, Maui and Hawaii on April 14, 2022. In March 2023, five projects were selected consisting of one paired PV with storage project on Oahu and four standalone PV projects on Hawaii Island. Two projects on Hawaii Island were subsequently withdrawn by the developer on October 18, 2023. See "Transition to a decarbonized and sustainable energy future—Community-based renewable energy" for additional information.
- The Hawaii Island Stage 3 RFP, seeking 325 gigawatt-hours (GWh) per year of energy and 65 MW of renewable firm capacity, was issued on November 21, 2022. Proposals were received on April 20, 2023. The Stage 3 RFPs for Oahu and Maui opened for bids on January 20, 2023. For Oahu, the Utilities are seeking 500 to 700 MW of renewable firm capacity, and at least 965 GWh of renewable dispatchable energy annually. For Maui, the Utilities are procuring at least 40 MW of renewable firm capacity, and at least 425 GWh of renewable dispatchable energy annually. On March 15, 2023, the PUC denied the Utilities' request to not advance its own proposal to meet the Maui firm capacity need as required under the Framework for Competitive Bidding, and on April 5, 2023, denied the Utilities' motion to modify the Maui RFP to allow a self-build, ordering the Utilities to submit a proposal for the firm capacity need, or in the alternative, file a request to suspend the firm generation portion of the Maui RFP to make adjustments as ordered by the PUC, including an extension of the bidding period for firm generation proposals. The Utilities filed their request on April 12, 2023, which the PUC granted on April 14, 2023. The updated Maui RFP was filed on April 27, 2023. Proposals for the Oahu RFP and the variable generation portion of the Maui RFP were received on April 20, 2023. The Utilities submitted a proposal that is consistent with the reliability requirements under the competitive bidding framework as directed by the PUC. Priority List selections were announced on July 6, 2023 and best and final offers for the Oahu and Hawaii RFPs and the variable generation portion of the Maui RFP were due on July 14, 2023. Final award selection was originally planned for October 2023, with negotiations of the PPAs expected to be completed in the later part of 2024. On September 27, 2023, the PUC approved the Utilities' proposal to extend the selection of the final awards to as far as December 1, 2023 for the Oahu and Hawaii RFPs, as well as for the variable generation portion of the Maui RFP. Proposals for the firm generation portion of the Maui Stage 3 RFP were received on August 17, 2023, and Priority List selections were announced on October 9, 2023. 15 proposals were selected to the Final Award Group on December 8, 2023. Seven projects were selected on Oahu (three solar plus storage and four firm renewable) totaling 413 GWh of variable generation, 594 MW of firm generation, and 990 MWh of storage; four projects were selected on Maui (three solar plus storage and one wind) totaling 324 GWh of variable generation, and 320 MWh of storage; and four projects were selected on Hawaii Island (three solar plus storage and one firm renewable) totaling 512 GWh of variable generation, 60 MW of firm generation, and 834 MWh of storage. One project totaling 40 MW of firm renewable generation was selected to the Maui Firm Final Award Group on February 2, 2024.

Review of Interconnection Process and Kapolei Energy Storage Power Purchase Agreement.

- In February 2021, the PUC initiated a docket for the purposes of reviewing the status and interconnection progress of various utility-related renewable projects (i.e. Stage 1 and Stage 2 RFP PPAs and CBRE) and the Utilities' transition plans for the expiration of the AES power purchase agreement, the retirement of the Kahului Power Plant, and other fossil fuel power plant transition plans, as needed. The Utilities filed initial status updates on the project timelines, steps needed for each of the renewable projects to achieve commercial operation and steps the Utilities are taking to address projected extensions of GCODs for renewable projects under development, which are due to a variety of factors, including those outside of the control of the Utilities. The PUC subsequently held status conferences on the Utilities' updates. In April 2021, the PUC issued an Order directing the Utilities to establish regulatory liabilities for the difference between the on-peak avoided cost and the unit price included in the applications for approval of the renewable project PPAs, effective with the GCOD included in the applications (the earliest GCOD included in the applications is July 2021) or from the date of the Order for CBRE Phase 1 projects. The amount of regulatory liabilities to be recorded in future periods are not determinable at this time and would be affected by a number of factors, including the length of the GCOD extension period, the monthly on-peak avoided cost, as well as the factors described above. The Utilities filed a Motion for Reconsideration of the entire Order, or in the alternative to clarify that at most the PUC is directing the Utilities to track the information and not record the information at this time. The Utilities further requested a Stay of the Order pending resolution of the Motion. The Utilities maintain that extensions of GCODs are allowed under the PUC-approved contracts and that the Order has the unintended consequence of imposing penalties against the Utilities without due process. In May 2021, the PUC issued an order clarifying its Order and directed the Utilities to track costs to consumers caused by the perceived delay of renewable projects, and that the PUC does not intend to, at this time, impose any penalties on the Utilities. The Utilities report the tracked cost on a monthly basis. The full text of the Order, Motion for Reconsideration and request for a Stay of the Order, and clarification Order as well as the tracked costs can be found on the PUC website at hpuc.my.site.com/cdms/s/search (Docket No. 2021-0024).

- During the 2022 Legislative Session, the Hawaii State Legislature passed Senate Bill 2474 SD 2 HD 1 CD 1, which was signed into law on June 27, 2022 as Act 201. The law requires that the PUC contract with a qualified consultant to conduct a study on the accessibility of Hawaii's electric system and procedures for interconnection to Hawaii's electric system, including but not limited to the timeliness and costs of interconnection. The PUC contracted with PA Consulting to conduct the study as well as act as the Independent Engineer for the Stage 3 Request for Proposal procurement. The report was submitted to the PUC on December 28, 2022 and did not find any wrongdoing on the part of the utility. The report made minor recommendations for Hawaiian Electric to review interconnection related tariff/ rules and revise, if necessary, to provide technical clarity in terms of interconnection requirements, to establish a database for the purpose of centralizing all information related to all interconnection projects they manage, including their self-build and IPP-built projects, and to develop comparable interconnection cost metrics for self-build and IPP-built projects so that interconnection costs can be directly compared. The PUC stated its intent to address the recommendations that are directed to Hawaiian Electric through various proceedings related to the interconnection process. Hawaiian Electric will be working on these recommendations. The contracted consultant has completed a second phase of the study, dated December 28, 2023, which included the assessment and recommendation of remaining issues listed in Act 201 that were not covered in Phase 1.

- Also in April 2021, the PUC approved the Kapolei Energy Storage (KES) PPA (one of the PPAs as a result of the Stage 2 Renewable RFP process) (KES Decision and Order), subject to nine conditions, including the Utilities forgoing the second portion of the PIM rewards amounting up to $1.7 million for the Stage 1 RFP PPAs, removing grid constraints for the Utilities' CBRE Phase 2 projects and for existing and new distributed energy programs, financial retirement of Hawaiian Electric generating units by specified dates and adjusting target revenues at the retirement dates for such retirements, and a requirement to charge the batteries in the project using significant levels of renewable energy generation. The financial retirement of the generating units described in the KES Decision and Order is contrary to the intent of Hawaii Revised Statutes §269-6(d), which encourages the recovery of stranded costs for the retirement of fossil fuel generation, and contrary to the regulatory compact under which in return for agreeing to commit capital necessary to allow utilities to meet their obligation to serve, utilities are assured recovery of their investment and a fair opportunity to earn a reasonable return on the capital prudently committed to the business. Hawaiian Electric filed a Motion for Reconsideration and Stay of the Decision and Order due to potentially significant financial and operational impacts. In May 2021, the PUC granted, in part, Hawaiian Electric's Motion for Reconsideration and Stay. In this Order, the PUC addressed a number of Hawaiian Electric's concerns, including removing the condition of the Utilities foregoing the PIM award from Stage 1 RFP projects, agreeing to address grid constraint concerns in respective DER and CBRE dockets and not in the KES docket, removing the minimum thresholds of charging energy coming from renewable energy generation and corresponding deadlines associated with these thresholds and modifying the condition on financial retirement of generating units. The PUC indicated the net book value of generating assets would be addressed at the time of retirement. The full text of the KES Decision and Order and the Motion for Reconsideration and Stay with respect thereto, and the Order granting, in part, Hawaiian Electric's Motion for Reconsideration can be found on the PUC website at hpuc.my.site.com/cdms/s/search (Docket No. 2020-0136). On October 2, 2023, the PUC issued an order (Order No. 40293) in the proceeding regarding the retirement of Waiau Units 3 and 4, which among other things, removed one of the nine conditions from the April 2021 KES Decision and Order regarding the financial retirement of Waiau and Kahe Units by specified dates. The full text of Order No. 42093 can be found on the PUC website at hpuc.my.site.com/cdms/s/search (Docket 2023-0339).

Legislation and regulation. Congress and the Hawaii legislature periodically consider legislation that could have positive or negative effects on the Utilities and their customers. Also see "Environmental regulation" in "Item 1. Business" and Note 4 of the Consolidated Financial Statements.

Fuel contracts. On June 30, 2021, the Utilities issued two RFPs for all fuels for supply commencing January 1, 2023. On February 1, 2022, the Utilities and PAR Hawaii Refining, LLC (PAR Hawaii) entered into a fuel supply contract commencing January 1, 2023. On December 1, 2022, the PUC issued a decision and order (D&O) approving the PAR Hawaii fuels contract and recovery of associated costs through ECRC.

On March 3, 2022, as part of economic sanctions amid the Russia-Ukraine war, PAR Hawaii announced that it was suspending all purchases of Russian crude oil, which accounts for at least 25% of Hawaii's supply. The Utilities are taking additional measure to ensure adequate supply of fuel by entering into a backup fuel supply contract with Vitol Inc. (Vitol) commencing on December 1, 2022 through June 30, 2024 with annual extensions if mutually agreed by both parties. The PUC issued the final D&O approving the Vitol backup fuels supply contract on December 1, 2022 and the costs incurred under the contract with Vitol are recovered in the Utilities' respective ECRCs.

Liquidity and capital resources. As of December 31, 2023, Hawaiian Electric had no commercial paper outstanding, $200 million outstanding on its revolving credit facility and no remaining available borrowing capacity under the Utilities' committed line of credit. The cash proceeds were invested in highly liquid short-term investments, and as of December 31, 2023 the Utilities' cash and cash equivalents balance was $106 million, compared to $39 million as of December 31, 2022. The increase was primarily due to line of credit draws on revolving credit facility.

Hawaiian Electric's objective continues to be to operate a strong, financially healthy enterprise to empower a thriving future for Hawaii. While the fundamentals of its business remain strong, the Utilities took prudent and measured actions to strengthen their financial position while continuing to provide reliable service to its customers and reinforcing its commitment to serving the community for the long term. The Utilities are working with financial advisors to maximize available liquidity and believe they have adequate cash to meet their financial obligations and sustain operations in the short term. Longer term, the Utilities are evaluating other sources of liquidity that could include securitization, re-prioritizing capital spending and reducing O&M, issuing secured debt, and conducting asset sales, among others.

Accounts receivable balances remain elevated coming out of the pandemic and has led to higher bad debt expense and higher write-offs in 2022 and 2023, following the end of the moratorium on disconnections. The higher bad debt expense is expected to continue until the Utilities return to pre-pandemic collection practices, along with a decrease in volume, for delinquent accounts. The Maui windstorm and wildfires have not and are not anticipated to materially impact accounts receivable and higher bad debt expense. As of December 31, 2023, approximately $22 million of the accounts receivables were over 30 days past due. Of the over 30 days past due amounts, approximately 49% were on payment plans. In addition to the cash flow impact from delayed collection of accounts receivable, lower kWh sales relative to the level of kWh sales approved in the last rate case generally result in delayed timing of cash flows, resulting in higher working capital requirements.

With the exception of Maui, the Utilities are continuing the disconnection process on a tiered basis, expanding the targeted balances, which is expected to reduce delinquent accounts receivable balances and accelerate cash collections. Service disconnections on Maui are suspended from August 8, 2023 to March 5, 2024; however, efforts are ongoing to educate and inform customers impacted by the Maui windstorm and wildfires on the availability of financial assistance to manage delinquencies accordingly. See also "Regulatory assets and liabilities" in Note 4 of the Consolidated Financial Statements.

The rebuilding of Lahaina will be a community-led effort and will occur over an extended period of time. The cost of rebuilding the electric utility infrastructure is not yet known, but could be significant because the infrastructure that may be required is expected to be different than what previously existed. For example, to mitigate wildfire risk, grid hardening strategies, such as undergrounding lines in high-risk locations, are expected to be employed.

Hawaiian Electric's consolidated capital structure was as follows:

December 31	2023		2022	
(dollars in millions)				
Short-term borrowings, net	$ —	—%	$ 88	2%
Long-term debt, net	1,934	44	1,685	41
Preferred stock	34	1	34	1
Common stock equity	2,409	55	2,344	56
	$ 4,377	100%	$ 4,151	100%

Information about Hawaiian Electric's commercial paper borrowings, borrowings from HEI, and line of credit facility were as follows:

	Year ended December 31, 2023		
(in millions)	Average balance	End-of-period balance	December 31, 2022
Commercial paper	$ 6	$ —	$ 88
Borrowings from HEI	—	—	—
Line of credit draws on revolving credit facility	72	200	—

Note: The maximum amount of external short-term borrowings by Hawaiian Electric during 2023 was approximately $200 million. At December 31, 2023, Hawaii Electric Light and Maui Electric had short-term borrowings from Hawaiian Electric of nil and $70.5 million, respectively, which intercompany borrowings are eliminated in consolidation.

Prior to the Maui windstorm and wildfires, Hawaiian Electric utilized short-term debt, typically commercial paper, to support normal operations, to refinance short-term debt and for other temporary requirements. Hawaiian Electric also borrows short-term from HEI for itself and on behalf of Hawaii Electric Light and Maui Electric, and Hawaiian Electric may borrow from or loan to Hawaii Electric Light and Maui Electric on a short-term basis. The intercompany borrowings among the Utilities, but not the borrowings from HEI, are eliminated in the consolidation of Hawaiian Electric's financial statements. The Utilities also historically utilized long-term debt, borrowings of the proceeds of special purpose revenue bonds (SPRBs) issued by the State of Hawaii Department of Budget and Finance (DBF) and the issuance of privately placed unsecured senior notes bearing taxable interest, to finance the Utilities' capital improvement projects, or to repay short-term borrowings used to finance such projects. The downgrades of Hawaiian Electric's credit ratings will continue to adversely impact the Utilities' ability to access capital markets and other sources of debt and equity financing, if at all, in a timely manner and on acceptable terms. The Utilities are currently evaluating other sources of liquidity that could include securitization, re-prioritizing capital spending and reducing O&M, issuing secured debt, conducting asset sales, among others. On February 16, 2024, the Utilities filed an application to seek PUC approval to pursue additional financing through a secured asset-based (accounts receivable) credit facility, which could provide up to $250 million in liquidity.

Credit agreement. On August 23, 2023, Hawaiian Electric fully drew down $200 million on its existing revolving credit facilities. The cash proceeds were invested in highly liquid short-term investments and will be used for general corporate purposes. The $200 million line of credit facility remained fully drawn as of December 31, 2023. See Note 6 of the Consolidated Financial Statements for additional information.

Credit ratings. In August 2023, the credit ratings of Hawaiian Electric were subject to multiple downgrades, including to ratings below investment grade, by Fitch, Moody's and S&P. These rating actions were primarily due to the uncertainty facing the Utilities resulting from potential liability related to damages and losses caused by the Maui windstorm and wildfires and increasing number of lawsuits filed to date. From prior to the August 2023 downgrades, to as of February 15, 2024, the Fitch, Moody's and S&P ratings of Hawaiian Electric were as follows:

	Fitch		Moody's		S&P	
	To	**From**	**To**	**From**	**To**	**From**
Long-term issuer default, long-term and issuer credit, respectively	B	A-	Ba3	Baa1	B-	BBB
Short-term issuer default, commercial paper and commercial paper, respectively	B	F2	NP	P-2	B	A-2
Senior unsecured debt/special purpose revenue bonds	B+	A	Ba3	Baa1	*	*
Cumulative preferred stock (selected series)	*	*	B3	Baa3	*	*
Outlook	Watch Negative	Stable	Stable**	Stable	Watch Negative	Stable

* Not rated.

** In December 2023, Moody's revised Hawaiian Electric's outlook from "Review for Downgrade" to "Stable" due to several positive developments, including proactive efforts by the State of Hawaii to develop a plan to address the financial and legal issues raised by the wildfires. See Note 2 of the Consolidated Financial Statements for further information.

Note: The above ratings reflect only the view, at the time the ratings are issued or affirmed, of the applicable rating agency, from whom an explanation of the significance of such ratings may be obtained. Such ratings are not recommendations to buy, sell or hold any securities; such ratings may be subject to revision or withdrawal at any time by the rating agencies; and each rating should be evaluated independently of any other rating.

See "Credit and Capital Market Risk" in item 1A. Risk Factors. The downgrades of Hawaiian Electric's credit ratings will continue to adversely impact the Utilities' ability to access capital markets and other sources of debt financing, if at all, in a timely manner and on acceptable terms. In addition, the downgrades of the Hawaiian Electric's credit ratings triggered certain cash or payment requirements with the Utilities' vendors. However, the Utilities believe additional vendor collateral or payment requirements will not have a material impact on the Utilities' liquidity.

SPRBs. SPRBs have been issued by the DBF to finance (and refinance) capital improvement projects of Hawaiian Electric and its subsidiaries, but the sources of their repayment are the non-collateralized obligations of Hawaiian Electric and its subsidiaries under loan agreements and notes issued to the DBF, including Hawaiian Electric's guarantees of its subsidiaries' obligations.

On June 10, 2019, the Hawaii legislature authorized the issuance of up to $700 million of SPRBs ($400 million for Hawaiian Electric, $150 million for Hawaii Electric Light and $150 million for Maui Electric), with PUC approval, prior to June 30, 2024, to finance the Utilities' multi-project capital improvement programs (2019 Legislative Authorization).

On February 9, 2021, the PUC approved the use of the expedited approval procedure to request the issuance and sale of the remaining/unused amount of SPRBs authorized by the 2019 Legislative Authorization (i.e., total not to exceed up to $400 million for Hawaiian Electric, up to $150 million for Hawaii Electric Light, and up to $150 million for Maui Electric) during the period January 1, 2023 through June 30, 2024. On January 31, 2023, the PUC approved the Utilities' requests to issue the remaining unused amounts of the SPRBs during the period January 1, 2023 through June 30, 2024, and the certification and approval of supplemental projects eligible to be financed by the SPRB proceeds.

Taxable debt. On December 20, 2022, the Utilities received PUC approval to issue, over a four-year period from January 1, 2023 to December 31, 2026, unsecured obligations bearing taxable interest (Hawaiian Electric up to $230 million, Hawaii Electric Light up to $65 million and Maui Electric up to $105 million), to finance capital expenditures, repay long-term and/or short-term debt used to finance or refinance capital expenditures, and/or to reimburse funds used for payment of capital expenditures. Pursuant to the approval, on January 10, 2023, the Utilities executed through a private placement, $150 million in unsecured senior notes (2023 Notes). The 2023 Notes had a delayed draw feature and the Utilities drew down all the proceeds on February 9, 2023. See Note 7 of the Consolidated Financial Statements for additional information and see summary table below for remaining authorized amounts.

(in millions)	**Hawaiian Electric**	**Hawaii Electric Light**	**Maui Electric**
Total "up to" amounts of taxable debt authorized from 2023 through 2026	$ 230	$ 65	$ 105
Less:			
Taxable debt executed on January 10, 2023, but issued on February 9, 2023	100	25	25
Remaining authorized amounts	$ 130	$ 40	$ 80

As of December 31, 2023, Hawaiian Electric, Hawaii Electric Light, and Maui Electric have $130 million, $40 million, and $80 million, respectively of remaining taxable debt authorization.

Equity. On December 20, 2022, the Utilities received PUC approval to issue and sell each utility's common stock over a four-year period from January 1, 2023 through December 31, 2026 (Hawaiian Electric's sale/s to HEI of up to $75 million, Hawaii Electric Light sale/s to Hawaiian Electric of up to $25 million, and Maui Electric sale/s to Hawaiian Electric of up to $55 million) and the purchase of Hawaii Electric Light and Maui Electric common stock by Hawaiian Electric from 2023 through December 31, 2026. As of December 31, 2023, Hawaiian Electric, Hawaii Electric Light, and Maui Electric have $75 million, $25 million, and $55 million, respectively, of unused common stock authorization.

Cash flows. The following table reflects the changes in cash flows for the year ended December 31, 2023 compared to the year ended December 31, 2022:

	Years ended December 31		
(in thousands)	**2023**	**2022**	**Change**
Net cash provided by operating activities	$ 474,367	$ 327,930	$ 146,437
Net cash used in investing activities	(432,599)	(324,085)	(108,514)
Net cash provided by (used in) financing activities	27,067	(19,861)	46,928

Net cash provided by operating activities: The increase in net cash provided by operating activities was primarily driven by higher cash receipt of payments from large delinquent commercial customer accounts, and from customers due to increased disconnection efforts and receipt of government and other program assistance, as well as lower cash paid for fuel oil stock due to lower fuel oil prices and lower volume purchased, partially offset by higher revenue taxes paid due to timing.

Net cash used in investing activities: The increase in net cash used in investing activities was primarily driven by an increase in capital expenditures related to construction activities.

*Net cash provided by financing activiti*es: The increase in net cash provided by financing activities was driven by higher cash proceeds from long-term borrowings and line of credit draws on revolving credit facility, partially offset by repayment of short-term borrowings and lower proceeds from issuance of common stock.

For a discussion of 2021 operating, investing and financing activities, please refer to the "Liquidity and capital resources" section in Item 7, "Management Discussion and Analysis of Financial Condition and Results of Operations—Electric utility," in the Company's 2022 Form 10-K.

Material cash requirements. Material cash requirements of the Utilities include O&M expenses, legal and consulting costs related to the Maui windstorm and wildfires, labor and benefit costs, fuel and purchase power costs, debt and interest payments, operating and finance lease obligations, their forecasted capital expenditures (including capital expenditures related to wildfires and wildfire mitigations) and investments, their expected retirement benefit plan contributions and other short-term and long-term material cash requirements. The cash requirements for O&M, fuel and purchase power costs, debt and interest payments, and operating and finance lease obligations are generally funded through the collection of the Utilities' revenue requirement established in the last rate case and other mechanisms established under the regulatory framework. The cash requirements for capital expenditures are generally funded through retained earnings, the issuance of debt, and contributions of equity from HEI and generally recovered through the Utilities' revenue requirement or other capital recovery mechanisms over time. Although the Utilities' credit rating downgrades related to the Maui windstorm and wildfires will continue to adversely impact its ability to access capital markets and other sources of debt financing, if at all, in a timely manner and on acceptable terms, the Utilities currently believe that their ability to generate cash is adequate to maintain sufficient liquidity to fund their material cash requirements in the short term. However, the potential damages and losses related to the Maui windstorm and wildfires and related lawsuits (see further information in Note 2 of the Consolidated Financial Statements), the economic impact of higher fuel prices, inflation, higher interest rates, tightening of monetary policy, and geopolitical situations, create significant uncertainty, and the Utilities cannot predict the extent or duration of these conditions, the future effects that these conditions will have on the Utilities' cost of capital and their ability to access additional capital, or the future impacts on the Utilities' financial position, results of operations, and cash flows.

Selected short-term and long-term contractual obligations and commitments. The following table presents aggregated information about total payments due from the Utilities during the indicated periods under the specified contractual obligations and commitments:

December 31, 2023	Payments due by period				
(in millions)	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total
Long-term debt	$ —	$ 192	$ 348	$ 1,402	$ 1,942
Interest on long-term debt	89	153	131	685	1,058
Operating and finance leases					
PPAs classified as leases	38	76	72	511	697
Other leases	15	24	11	21	71
Open purchase order obligations [1]	172	61	7	7	247
Fuel oil purchase obligations (estimate based on fuel oil price at December 31)	4	5	—	—	9
Purchase power obligations-minimum fixed capacity charges not classified as leases	84	169	177	599	1,029
Liabilities for uncertain tax positions	2	1	—	—	3
Total (estimated)	$ 404	$ 681	$ 746	$ 3,225	$ 5,056

[1] Includes contractual obligations and commitments for capital expenditures and expense amounts.

The table above does not include other categories of obligations and commitments, such as deferred taxes, trade payables, amounts that will become payable in future periods under collective bargaining and other employment agreements and employee benefit plans and potential refunds of amounts collected from ratepayers (e.g., under the earnings sharing mechanism). As of December 31, 2023, the fair value of the assets held in trusts to satisfy the obligations of the Utilities' retirement benefit plans did not exceed the retirement benefit plans' benefit obligation. Minimum funding requirements for retirement benefit plans have not been included in the table above. See Note 11 of the Consolidated Financial Statements for retirement benefit plan obligations and estimated contributions for 2024.

See "Biofuel sources" in the "Developments in renewable energy efforts" section above for additional information for fuel oil purchase obligation. See Notes 4 and 9 of the Consolidated Financial Statements for a discussion of power purchase commitments and operating leases obligations, respectively.

Competition. Although competition in the generation sector in Hawaii is moderated by the scarcity of generation sites, various permitting processes and lack of interconnections to other electric utilities, the PUC has promoted a more competitive electric industry environment through its decisions concerning competitive bidding and distributed generation. An increasing amount of generation is provided by IPPs and customer distributed generation.

Competitive bidding. In December 2006, the PUC issued a decision that included a final competitive bidding framework, which became effective immediately. The final framework states, among other things, that: (1) a utility is required to use competitive bidding to acquire a future generation resource or a block of generation resources unless the PUC finds bidding to be unsuitable; (2) the framework does not apply in certain situations identified in the framework; (3) waivers from competitive bidding for certain circumstances will be considered; (4) the utility is required to select an independent observer from a list approved by the PUC whenever the utility or its affiliate seeks to advance a project proposal (i.e., in competition with those offered by bidders); (5) the utility may consider its own self-bid proposals in response to generation needs identified in its RFP; and (6) for any resource to which competitive bidding does not apply (due to waiver or exemption), the utility retains its traditional obligation to offer to purchase capacity and energy from a Qualifying Facility (QF) at avoided cost upon reasonable terms and conditions approved by the PUC.

Technological developments. New emerging and breakthrough technological developments may impact the Utilities' future competitive position, results of operations, financial condition and liquidity. The Utilities continue to seek prudent opportunities to develop, test, pilot, and implement technologies that align with their technical and business plans and support clean energy and decarbonized goals, while ensuring reliability and resilience as the Utilities adapt to a changing climate. Technologies that the Utilities are evaluating include the commercial development of advanced protection schemes that would monitor, detect, and isolate falling overhead distribution and transmission lines to reduce wildfire risks and improve public/employee safety, long-duration energy storage, grid-forming and black starting inverters in low inertia power systems, microgrids, distributed generation, grid modernization, electrification of transportation, implement predictive analytics and control through edge computing using artificial intelligence machine learning algorithms to help assess the state of health of utility assets and prevent premature failure, and the diversification of generation from renewable sources.

Environmental matters. See "Electric utility—Regulation—Environmental regulation" under "Item 1. Business" and "Environmental regulation" in Note 4 of the Consolidated Financial Statements.

Commitments and contingencies. See Item 1A. Risk Factors, and Note 4 of the Consolidated Financial Statements for a discussion of important commitments and contingencies.

Off-balance sheet arrangements. See "Off-balance sheet arrangements" above in HEI Consolidated section.

Material estimates and critical accounting policies. Also see "Material estimates and critical accounting policies" above in HEI Consolidated section.

Regulatory assets and liabilities. The Utilities are regulated by the PUC. In accordance with accounting standards for regulatory operations, the Company's and the Utilities' financial statements reflect assets, liabilities, revenues and costs of the Utilities based on current cost-based rate-making regulations. The actions of regulators, including the PBR Framework, can affect the timing of recognition of revenues, expenses, assets and liabilities.

Regulatory liabilities represent amounts collected from customers for costs that are expected to be incurred in the future, or amounts collected in excess of costs incurred that are refundable to customers. Regulatory assets represent incurred costs that have been deferred because their recovery in future customer rates is probable. As of December 31, 2023, the consolidated regulatory liabilities and regulatory assets of the Utilities amounted to $1,151 million and $295 million, respectively, compared to $1,056 million and $243 million as of December 31, 2022, respectively. Regulatory liabilities and regulatory assets are itemized in Note 4 of the Consolidated Financial Statements. Management continually assesses whether the regulatory assets are probable of future recovery by considering factors such as changes in the applicable regulatory environment. The Utilities record regulatory assets and liabilities when they are deemed probable of recovery from or refund to customers. Determining probability requires significant judgment by management and includes considerations of regulatory orders, proposed regulatory treatment, strength of the applications and other available evidence.

Management believes that the operations of the Utilities, including the impact of the approved PBR Framework, currently satisfy the criteria for regulatory accounting. If events or circumstances should change so that those criteria are no longer satisfied, the Utilities expect that their regulatory assets, net of regulatory liabilities, would be charged to the statement of income in the period of discontinuance, which may result in a material adverse effect on the Company's and the Utilities' results of operations, financial condition and liquidity.

Asset retirement obligations. The Utilities recognize AROs at present value of expected costs to retire long-lived assets from service, which is estimated using a discounted cash flow model that relies on significant estimates and assumptions about future decommissioning costs, inflationary rates, and the estimated date of decommissioning. The estimated future cash flows are discounted using a credit-adjusted risk-free rate to reflect the risk associated with decommissioning the assets. The Utilities have not recorded AROs for assets that are expected to operate indefinitely or where the Utilities cannot estimate a settlement date (or range of potential settlement dates.) As such, ARO liabilities are not recorded for certain asset retirement activities, including various Utility-owned generating facilities and certain electric transmission, distribution and telecommunication assets resulting from easements over property not owned by the Utilities.

Changes in estimated costs, timing of decommissioning or other assumptions used in the calculation could cause material revision on the recorded liabilities. As of December 31, 2023 and December 31, 2022, the Utilities' AROs totaled $12.0 million and $11.5 million, respectively.

Bank

Executive overview and strategy. ASB, headquartered in Honolulu, Hawaii, is a full-service community bank serving both consumer and commercial customers. ASB is one of the largest financial institutions in Hawaii and ended 2023 with assets of $9.7 billion and net income of $53 million, compared to assets of $9.5 billion and net income of $80 million in 2022.

ASB provides a wide range of financial products and services, and in order to remain competitive and continue building core franchise value, ASB is focused on making banking easier for the customer and developing and introducing new products and services in order to meet market needs. Additionally, the banking industry is constantly changing and ASB is making the investments in people and technology necessary to adapt and remain competitive, facilitate process improvements in order to deliver a continuously better experience for its customers, and be a more efficient bank. ASB's continued focus has been on efficient growth to maximize profitability and capital efficiency, as well as control expenses. Key strategies to drive organic growth include:

1. deepening customer relationships through the redesign of branch-centric approaches as transactions and engagement migrate to other channels;
2. building out product and service offerings to open new segments;

3. online and remotely-assisted account opening capabilities as there is a much more rapid and pervasive adoption of online and mobile banking by Hawaii banking customers; and
4. prioritizing efficiency actions to gain earnings leverage on organic growth.

The interest rate environment and the quality of ASB's assets will continue to influence its financial results.Rising interest rates and a shift in costing liabilities mix have impacted the Bank's net interest margin. The Federal Reserve Bank's efforts to increase short-term rates to combat inflation could result in a recession and would compress ASB's net interest margin if interest rates reverse and decline to lower levels.

As part of its interest rate risk management process, ASB uses simulation analysis to measure net interest income sensitivity to changes in interest rates (see "Item 7A. Quantitative and Qualitative Disclosures about Market Risk"). ASB then employs strategies to limit the impact of changes in interest rates on net interest income. ASB's key strategies to manage interest rate risk include:

1. retaining low-cost deposits, particularly those in non-interest bearing transaction accounts;
2. diversifying the loan portfolio with higher-spread, shorter-maturity loans and/or variable rate loans.

Recent Developments. See also Recent developments in HEI's MD&A.

The Hawaii economy remained stable in 2023 as visitor arrivals continued to drive a growing labor market and tax collections. Domestic visitor arrivals continued to remain strong due to pent up demand from leisure travelers. International visitor arrivals continued to lag significantly behind pre-pandemic levels but have gradually increased as certain Asian countries began loosening travel restrictions.

In August 2023, ASB was impacted by wildfires on Maui which caused widespread property damage and fatalities. ASB's outstanding credit exposure in Maui and the fire impacted zone of Lahaina as of December 31, 2023 was 11.9% and 0.7%, respectively, of the Bank's total loan portfolio. In addition, ASB incurred additional expenses as a result of the Maui wildfires of $11.3 million, pretax, including higher provision for credit losses, additional professional services expenses and other expenses.

In fourth quarter 2023, ASB sold $185 million of investment securities resulting in a pretax loss of $15 million. The proceeds of the sale was primarily used to repay maturing higher costing liabilities.

Net income was $53 million, 33% lower than net income of $80 million in 2022. Net interest income before provision for credit losses of $252.0 million for the year ended December 31, 2023, was slightly lower compared to net interest income before provision for credit losses of $252.6 million for the year ended December 31, 2022. Net interest margin decreased to 2.74% for the year ended December 31, 2023, compared to 2.89% for the year ended December 31, 2022. The lower net interest margin was primarily driven by higher funding costs partially offset by higher yields on earning assets as loan growth and core deposit outflow required ASB to use higher costing term certificates and other borrowings as a funding source. At December 31, 2023 and 2022, ASB's funding sources consisted of 92% deposits and 8% other borrowings.

In 2023 the Federal Reserve federal funds rate target range was 5.25%-5.50% in response to continued inflationary pressures in the economy. The increase in interest rates has impacted ASB's net interest margin as higher yields on earning assets were more than offset by an increase in yields on deposits and other borrowings. The higher interest rates have also reduced mortgage refinance and purchase activity, negatively impacting mortgage banking income. Additionally, the tight labor market and inflationary pressures have increased compensation and benefit expenses.

ASB experienced continued loan growth in 2023 as total loans increased $206 million compared to total loans at the end of 2022. There was demand for commercial real estate, home equity lines of credit and consumer loan products. The residential loan portfolio increased due to ASB's decision to portfolio a larger portion of its residential loan production.

An outflow of core deposits had required ASB to increase its use of term certificates and other borrowings to fund loan portfolio growth, thereby increasing the Bank's funding costs and reducing its balance sheet sensitivity. Additional federal funds rate increases may further decrease the Bank's net interest margin if core deposits continue to flow out and funding is replaced with term certificates and other borrowings.

ASB recorded a provision for credit losses of $10.4 million in 2023, compared with a $2.0 million provision for credit losses in 2022. The provision for credit losses in 2023 included credit loss reserves as a result of the Maui wildfires and additional credit loss reserves for net charge-offs primarily in the consumer loan portfolio, partly offset by lower loss reserves for the commercial loan portfolio due to improved loss rates and sale of syndicated national credits. The provision for credit losses in 2022 was for growth in the loan portfolio and also reflected the release of loss reserves for improving credit trends.

The provision for credit losses in future quarters will be dependent on future economic conditions and changes to borrower credit quality at that time.

For the year ended December 31, 2023, the investment securities portfolio balance decreased approximately $344 million, or 13% as investment securities portfolio repayments were used as a funding source for loan growth and ASB did not purchase any investment securities in 2023. In addition, during the fourth quarter 2023, the Bank sold $185 million of investment securities. In 2023, unrealized losses in the available-for-sale investment securities portfolio decreased $43 million primarily due to the interest rate environment.

In 2023, the increase in interest rates and the collapse of a few financial institutions had caused turmoil in the banking industry. Due to the failure of these financial institutions, the focus on the banking industry has been around capital levels, uninsured deposits and liquidity. At December 31, 2023, ASB's regulatory capital ratios were above the "well-capitalized" and regulatory requirements, including the conservation buffers. Approximately 86% of the Bank's deposits are FDIC insured or fully collateralized. ASB has access to approximately $3 billion in funding sources to meet its liquidity needs.

ASB continues to maintain its low-risk profile, strong balance sheet and straightforward community banking business model.

Results of operations.

2023 vs. 2022

(in millions)	2023	2022	Increase (decrease)	Primary reason(s)
Interest income	$ 335	$ 266	$ 69	Higher average earning asset balances and yields.
				Average loan portfolio balances increased $654 million - commercial real estate and home equity lines of credit loan portfolio average balances increased $213 million and $112 million, respectively, primarily due to increased demand for these loan products. Average residential loan portfolio increased $189 million as a result of ASB's decision to portfolio a larger portion of the residential loan production rather than sell them on the secondary market. Average consumer loans portfolio balance increased $96 million primarily due to purchases of solar and sustainable home improvement loans.
				Average loan portfolio yields 73 basis points higher - loan yields benefited from the rising interest rate environment. Current new loan production yields are now higher than the portfolio yields.
				Average investment securities portfolio balance decreased $224 million from sale of investment securities and repayments.
Noninterest income	45	57	(12)	Loss on sale of investments and lower gain on sale of real estate offset by higher bank-owned life insurance income.
				Loss on sale of investments of $15 million on sale of $185 million of investment securities in fourth quarter 2023.
				Gain on sale of real estate on sale of two properties in 2022.
				Higher bank-owned life insurance income from higher returns in 2023.
Less: gain on sale of real estate	—	(2)	2	Gain on sale of real estate, which is included in Noninterest income above and in the Bank's statements of income and comprehensive income in Note 5 of the Consolidated Financial Statements, is included in Bank expenses in the consolidated statements of income, and accordingly, is reflected in operating expenses below as a separate line item and excluded from Revenues.
Less: loss on sale of investment securities	15	—	15	Loss on sale of investment securities, which is included in Noninterest income above and in the Bank's statements of income and comprehensive income in Note 5 of the Consolidated Financial Statements, is classified as gain on sale of investment securities, net in the consolidated statements of income, and accordingly, is reflected below following operating income as a separate line item and excluded from Revenues.
Revenues	395	321	74	The increase in revenues was primarily due to higher interest income and higher noninterest income.
Interest expense	83	13	70	Higher interest expense on deposits and other borrowings.
				Higher interest expense on deposits due to rising interest rate environment which increased the yield on deposits and shifted deposit mix from lower costing core deposits to term certificates.
				Average core deposit balances decreased $513 million; average term certificate balances increased $413 million.
				Average deposit yields increased 51 basis points.
				Higher interest expense on other borrowings due to higher borrowing balances and yields. Other borrowings was a funding source for loan growth.
				Average other borrowings increased $506 million with an average yield increase of 214 basis points.
Provision for credit losses	10	2	8	2023 provision for credit losses includes $5.9 million for loans impacted by Maui wildfires and loss reserves for consumer net charge-offs partly offset by lower loss reserves for the commercial loan portfolio due to improved loss rates and sale of syndicated national credits.
				Delinquency rates have increased from 0.23% at December 31, 2022 to 0.65% at December 31, 2023 primarily due to higher residential 1-4 family and commercial real estate loan delinquencies.

(in millions)	2023	2022	Increase (decrease)	Primary reason(s)
				Net charge-offs to average loans increased from 0.03% at December 31, 2022 to 0.12% at December 31, 2023 due to higher personal unsecured loan portfolio net charge-offs.
Noninterest expense	224	205	19	Higher compensation and benefits expense, higher FDIC insurance premiums and expenses related to the Maui wildfires.
				Higher compensation and benefit expenses primarily due to increase in the fair value adjustment related to the deferred compensation plan.
				Higher FDIC insurance premiums due to increase in rates.
Gain on sale of real estate	—	(2)	2	
Expenses	317	218	99	The increase in expenses was primarily due to higher interest expense, higher noninterest expenses and higher provision for credit losses.
Operating income	78	103	(25)	Higher interest expense, higher noninterest expenses and higher provision for credit losses partly offset by higher interest income and higher noninterest income.
Loss on sale of investment securities	(15)	—	(15)	
Net income	$ 53	$ 80	$ (27)	The decrease in net income was the result of lower operating income and loss on sale of investment securities partly offset by lower income tax expense.
Return on average equity[1]	11.0%	14.1%	(3.1%)	

[1] Calculated using the average daily balance.

For a discussion of 2021 results, please refer to the "Results of operations" section in Item 7, "Management Discussion and Analysis of Financial Condition and Results of Operations—Bank," in the Company's 2022 Form 10-K.

See Note 5 of the Consolidated Financial Statements for further information about ASB.

For 2023, the Bank's costs related to the Maui wildfires is as follows:

(in thousands)	Year ended December 31, 2023
Bank Maui wildfires related cost:	
Provision for credit losses	$ 5,900
Professional services expenses	3,705
Other expenses[1]	1,666
Total Bank Maui wildfires related cost	**$ 11,271**

[1] Other expenses includes destroyed/loss cash of $1.0 million.

Note: Bank Maui wildfires related expenses - provision for credit losses is included in Provision for credit losses, professional services expenses are included in Noninterest expense-Services and other expenses are included in Noninterest expense-Other expense on the ASB Statements of Income and Comprehensive Income Data.

Average balance sheet and net interest margin. The following table provides a summary of average balances, including major categories of interest-earning assets and interest-bearing liabilities:

(dollars in thousands)	2023 Average balance	2023 Interest income/ expense	2023 Yield/ rate (%)	2022 Average balance	2022 Interest income/ expense	2022 Yield/ rate (%)	2021 Average balance	2021 Interest income/ expense	2021 Yield/ rate (%)
Assets:									
Interest-earning deposits	$ 77,680	$ 4,201	5.41	$ 59,277	$ 500	0.84	$ 69,930	$ 93	0.13
FHLB stock	20,720	1,197	5.78	15,465	702	4.54	10,298	327	3.17
Investment securities									
Taxable	2,948,711	51,052	1.73	3,171,771	55,529	1.75	2,792,255	42,114	1.51
Non-taxable	68,118	2,082	3.06	69,099	1,662	2.40	54,646	1,177	2.15
Total investment securities	3,016,829	53,134	1.76	3,240,870	57,191	1.76	2,846,901	43,291	1.52
Loans									
Residential 1-4 family	2,542,572	94,866	3.73	2,353,764	83,016	3.53	2,189,680	78,672	3.59
Commercial real estate	1,508,256	76,014	5.04	1,294,777	49,152	3.80	1,157,987	38,255	3.30
Home equity line of credit	1,030,983	39,539	3.84	918,563	28,506	3.10	885,759	27,669	3.12
Residential land	20,077	1,090	5.43	21,442	1,309	6.10	18,227	924	5.07
Commercial	754,601	42,741	5.66	710,658	29,295	4.12	856,226	36,178	4.23
Consumer	258,149	23,150	8.97	161,722	16,898	10.45	135,609	17,284	12.75
Total loans [1,2]	6,114,638	277,400	4.54	5,460,926	208,176	3.81	5,243,488	198,982	3.79
Total interest-earning assets [3]	9,229,867	335,932	3.64	8,776,538	266,569	3.04	8,170,617	242,693	2.97
Allowance for credit losses	(72,133)			(70,071)			(86,691)		
Noninterest-earning assets	464,669			567,106			742,174		
Total Assets	$ 9,622,403			$ 9,273,573			$ 8,826,100		
Liabilities and Shareholder's Equity:									
Savings	$ 2,968,982	2,367	0.08	$ 3,275,089	860	0.03	$ 3,069,615	802	0.03
Interest-bearing checking	1,352,385	6,503	0.48	1,345,627	765	0.06	1,237,969	242	0.02
Money market	294,023	8,669	2.95	208,015	330	0.16	192,044	132	0.07
Time certificates	883,068	31,366	3.55	470,189	5,372	1.14	483,353	3,805	0.79
Total interest-bearing deposits	5,498,458	48,905	0.89	5,298,920	7,327	0.14	4,982,981	4,981	0.10
Advances from Federal Home Loan Bank	271,805	12,670	4.66	136,630	4,716	3.45	15,319	42	0.27
Borrowings from Federal Reserve Bank	435,288	19,050	4.68	—	—	—	—	—	—
Securities sold under agreements to repurchase and federal funds purchased	62,441	2,172	3.48	127,170	1,258	0.99	88,405	17	0.02
Total interest-bearing liabilities	6,267,992	82,797	1.32	5,562,720	13,301	0.24	5,086,705	5,040	0.10
Noninterest bearing liabilities:									
Deposits	2,648,843			2,948,679			2,833,886		
Other	219,781			193,942			169,967		
Shareholder's equity	485,787			568,232			735,542		
Total Liabilities and Shareholder's Equity	$ 9,622,403			$ 9,273,573			$ 8,826,100		
Net interest income		$ 253,135			$ 253,268			$237,653	
Net interest margin (%)[4]			2.74			2.89			2.91

1 Includes loans held for sale, at lower of cost or fair value, of $5.5 million, $4.0 million and $23.0 million as of December 31, 2023, 2022 and 2021, respectively.

2 Includes recognition of net deferred loan fees of 2.9 million, $5.3 million and $14.3 million for 2023, 2022 and 2021 respectively, together with interest accrued prior to suspension of interest accrual on nonaccrual loans.

3 For 2023, 2022 and 2021, the taxable-equivalent basis adjustments made to the table above were not material.

4 Defined as net interest income, on a fully taxable equivalent basis, as a percentage of average total interest-earning assets.

The following table shows the effect on net interest income of (1) changes in interest rates (change in weighted-average interest rate multiplied by prior year average balance) and (2) changes in volume (change in average balance multiplied by prior period weighted-average interest rate). Any remaining change is allocated to the above two categories on a pro rata basis.

	2023 vs. 2022			2022 vs. 2021		
(in thousands)	**Rate**	**Volume**	**Total**	**Rate**	**Volume**	**Total**
Interest income						
Interest-earning deposits	$ 3,501	$ 200	$ 3,701	$ 423	$ (16)	$ 407
FHLB stock	221	274	495	174	201	375
Investment securities						
Taxable	(444)	(4,033)	(4,477)	7,260	6,155	13,415
Non-taxable	444	(24)	420	148	337	485
Total investment securities	—	(4,057)	(4,057)	7,408	6,492	13,900
Loans						
Residential 1-4 family	4,905	6,945	11,850	(1,357)	5,701	4,344
Commercial real estate	17,845	9,017	26,862	6,123	4,774	10,897
Home equity line of credit	7,293	3,740	11,033	(178)	1,015	837
Residential land	(139)	(80)	(219)	207	178	385
Commercial	12,502	944	13,446	13,111	(19,994)	(6,883)
Consumer	(17)	6,269	6,252	435	(821)	(386)
Total loans	42,389	26,835	69,224	18,341	(9,147)	9,194
Total increase (decrease) in interest income	46,111	23,252	69,363	26,346	(2,470)	23,876
Interest expense						
Savings	(1,600)	93	(1,507)	—	(58)	(58)
Interest-bearing checking	(5,734)	(4)	(5,738)	(501)	(22)	(523)
Money market	(8,145)	(194)	(8,339)	(186)	(12)	(198)
Time certificates	(10,878)	(15,116)	(25,994)	(1,672)	105	(1,567)
Advances from Federal Home Loan Bank	(2,081)	(5,873)	(7,954)	(2,793)	(1,881)	(4,674)
Borrowings from Federal Reserve Bank	(9,525)	(9,525)	(19,050)			
Securities sold under agreements to repurchase and federal funds purchased	(1,826)	912	(914)	(1,230)	(11)	(1,241)
Total decrease (increase) in interest expense	(39,789)	(29,707)	(69,496)	(6,382)	(1,879)	(8,261)
Increase (decrease) in net interest income	$ 6,322	$ (6,455)	$ (133)	$ 19,964	$ (4,349)	$ 15,615

Earning assets, costing liabilities, contingencies and other factors. Earnings of ASB depend primarily on net interest income, which is the difference between interest earned on earning assets and interest paid on costing liabilities. In 2023, the Federal Open Market Committee increased its federal funds rate target range to be 5.25%-5.50% in response to continued inflationary pressures in the economy. The changes to interest rates continues to impact ASB's net interest margin.

Loans and mortgage-backed securities are ASB's primary earning assets.

Loan portfolio. ASB's loan volumes and yields are affected by market interest rates, competition, demand for financing, availability of funds and management's responses to these factors. See "Loans" in Note 5 of the Consolidated Financial Statements for a composition of ASB's loan portfolio.

The increase in the loan portfolio balance in 2023 was primarily due to growth in commercial real estate, residential, consumer and home equity line of credit (HELOC) portfolios. The growth in the residential loan portfolio was due to ASB's decision to portfolio a larger portion of the residential mortgage loan production and reduce the amount of residential loans sold in the secondary market. The growth in the commercial real estate and HELOC portfolios was due to increased demand for these loan products. The increase in consumer loans portfolio balance was primarily due to purchases of solar and sustainable home improvement loans.

The increase in the loan portfolio balance in 2022 was primarily due to growth in residential, commercial real estate, HELOC and consumer loan portfolios. The growth in the residential loan portfolio was due to ASB's decision to portfolio a larger portion of the residential mortgage loan production and reduce the amount of residential loans sold in the secondary market. Higher interest rates also slowed refinance activity and prepayments in the residential mortgage loan portfolio. The growth in the commercial real estate, HELOC and consumer loan portfolios was due to increased demand for these loan products. The decrease in the commercial loan portfolio was due to the continued paydown of the PPP loans which decreased from $69 million at December 31, 2021 to $5 million at December 31, 2022.

The following table summarizes loans held for investment based upon contractually scheduled principal payments allocated to the indicated maturity categories:

December 31	2023				
Due	In 1 year or less	After 1 year through 5 years	After 5 years through 15 years	After 15 years	Total
(in millions)					
Residential 1-4 family – Fixed	$ 77	$ 318	$ 838	$ 1,036	$ 2,269
Residential 1-4 family – Adjustable	22	86	199	20	327
Total residential 1-4 family	99	404	1,037	1,056	2,596
Commercial real estate – Fixed	68	189	537	5	799
Commercial real estate – Adjustable	95	281	192	7	575
Total commercial real estate	163	470	729	12	1,374
Home equity line of credit– Fixed	28	110	216	26	380
Home equity line of credit – Adjustable	3	12	141	481	637
Total home equity line of credit	31	122	357	507	1,017
Residential land– Fixed	8	10	—	—	18
Residential land – Adjustable	—	—	—	—	—
Total residential land	8	10	—	—	18
Commercial construction – Fixed	15	12	—	6	33
Commercial construction – Adjustable	27	44	12	56	139
Total commercial construction	42	56	12	62	172
Residential construction – Fixed	18	—	—	—	18
Residential construction – Adjustable	—	—	—	—	—
Total residential construction	18	—	—	—	18
Commercial – Fixed	112	188	45	1	346
Commercial – Adjustable	136	250	11	1	398
Total commercial	248	438	56	2	744
Consumer – Fixed	48	87	14	113	262
Consumer – Adjustable	2	7	1	—	10
Total consumer	50	94	15	113	272
Total loans – Fixed	374	914	1,650	1,187	4,125
Total loans – Adjustable	285	680	556	565	2,086
Total loans	$ 659	$ 1,594	$ 2,206	$ 1,752	$ 6,211

Home equity lines of credit. The HELOC portfolio makes up 16% of the total loan portfolio and is generally an interest-only revolving loan for a 10-year period, after which time the HELOC outstanding balance converts to a fully amortizing variable-rate term loan with a 20-year amortization period. Borrowers also have a "Fixed Rate Loan Option" to convert a part of their available line of credit into a 5, 7 or 10-year fully amortizing fixed-rate loan with level principal and interest payments. As of December 31, 2023, approximately 37% of the portfolio balances were amortizing loans under the Fixed Rate Loan Option. A HELOC loan is typically in a subordinate lien position to a borrower's first mortgage loan, however, approximately 53% of ASB's HELOC loan portfolio is in a first lien position.

Loan portfolio risk elements. When a borrower fails to make a required payment on a loan and does not cure the delinquency promptly, the loan is classified as delinquent. If delinquencies are not cured promptly, ASB normally commences a collection action, including foreclosure proceedings in the case of real estate secured loans. In a foreclosure action, the property collateralizing the delinquent debt is sold at a public auction in which ASB may participate as a bidder to protect its interest. If ASB is the successful bidder, the property is classified as real estate owned until it is sold. As of December 31, 2023 and 2022, ASB had nil and $115,000, respectively, of real estate acquired in settlement of loans.

In addition to delinquent loans, other significant lending risk elements include: (1) loans which accrue interest and are 90 days or more past due as to principal or interest, (2) loans accounted for on a nonaccrual basis (nonaccrual loans), and (3) loans on which various concessions are made with respect to interest rate, maturity, or other terms due to the inability of the borrower to service the obligation under the original terms of the agreement (troubled debt restructured loans). ASB loans that were 90 days or more past due on which interest was being accrued as of December 31, 2023 and 2022 were immaterial or nil. The following table sets forth certain information with respect to nonaccrual loans:

December 31	**2023**	**2022**
(dollars in thousands)		
Real estate:		
Residential 1-4 family	$ 9,945	$ 7,179
Commercial real estate	11,048	—
Home equity line of credit	3,761	5,096
Residential land	780	420
Commercial construction	—	—
Residential construction	—	—
Total real estate	25,534	12,695
Commercial	434	2,183
Consumer	2,458	1,588
Total nonaccrual loans	$ 28,426	$ 16,466
Loans receivable, net	$ 6,180,810	$ 5,978,906
Allowance for credit losses	$ 74,372	$ 72,216
Nonaccrual loans to loans receivable, net	0.46%	0.28%
Allowance for credit losses to nonaccrual loans	2.62x	4.39x

In 2023, nonaccrual loans increased $12.0 million primarily due to an increase in commercial real estate nonaccrual loans of $11.0 million. The increase in commercial real estate nonaccrual loans was due to one commercial real estate loan on nonaccrual status.

In 2022, nonaccrual loans decreased $28.5 million primarily due to decreases in commercial real estate and residential 1-4 family nonaccrual loans of $15.3 million and $12.6 million, respectively. The decrease in commercial real estate nonaccrual loans was due to the reclassification of one commercial real estate loan to accrual status. The decrease in the residential nonaccrual loans was due to the reclassification of residential loans to accrual status based on payment performance.

See “Allowance for credit losses” in Note 5 of the Consolidated Financial Statements for information with respect to nonperforming assets.

Allowance for credit losses. See “Allowance for credit losses” in Note 5 of the Consolidated Financial Statements for the tables which sets forth the allocation of ASB’s allowance for credit losses.

During 2023, ASB recorded a provision for credit losses related to the allowance for credit losses of $10.4 million primarily due credit loss reserves as a result of the Maui wildfires and additional credit loss reserves for net charge-offs primarily in the consumer loan portfolio, partly offset by lower loss reserves for the commercial loan portfolio due to improved loss rates and sale of syndicated national credits.

ASB maintains a reserve for credit losses that consists of two components, the allowance for credit losses and an allowance for loan commitments (unfunded reserve). For 2023, ASB recorded a provision for credit losses for unfunded commitments of $0.7 million compared to a negative provision for credit losses for unfunded commitments of $0.5 million for 2022. As of December 31, 2023 and December 31, 2022, the reserve for unfunded loan commitments was $5.1 million and $4.4 million, respectively.

The following table sets forth the allocation of ASB's allowance for credit losses and the percentage of loans in each category to total loans:

December 31	2023			2022		
(dollars in thousands)	Allowance balance	Allowance to loan receivable %	Loan receivable % of total	Allowance balance	Allowance to loan receivable %	Loan receivable % of total
Real estate:						
Residential 1-4 family	$ 7,435	0.29	41.8	$ 6,270	0.25	41.3
Commercial real estate	22,185	1.62	22.1	21,898	1.62	22.6
Home equity line of credit	7,778	0.76	16.4	6,125	0.61	16.7
Residential land	621	3.39	0.3	717	3.48	0.3
Commercial construction	3,603	2.10	2.8	1,195	1.36	1.5
Residential construction	43	0.24	0.3	46	0.22	0.4
Total real estate	41,665	0.80	83.7	36,251	0.73	82.8
Commercial	9,122	1.23	12.0	12,426	1.60	13.0
Consumer	23,585	9.38	4.3	23,539	9.92	4.2
Total allowance for credit losses	$ 74,372	1.20	100.0	$ 72,216	1.21	100.0

In 2023, ASB's allowance for credit losses increased by $2.2 million primarily due to increases in the loan loss reserves for the commercial construction, HELOC and residential loan portfolios as a result of growth in those loan portfolios. The decrease in the allowance for credit losses for the commercial portfolio was primarily due to the release of reserves as a result of lower estimated losses and sale of syndicated national credits. Total delinquencies of $39.9 million at December 31, 2023 was an increase of $26.0 million compared to total delinquencies of $13.9 million at December 31, 2022 primarily due to an increase in commercial real estate, residential and consumer loan delinquencies. The ratio of delinquent loans to total loans increased from 0.23% of total outstanding loans at December 31, 2022 to 0.65% of total outstanding loans at December 31, 2023. Net charge-offs for 2023 were $7.5 million, an increase of $6.1 million compared to $1.4 million in 2022 primarily due to an increase in consumer loan portfolio net charge-offs.

In 2022, ASB's allowance for credit losses increased by $1.1 million primarily due to increases in the loan loss reserves for the consumer and HELOC loan portfolios as a result of growth in those loan portfolios. The decreases in the allowance for credit losses for the commercial, commercial real estate and residential loan portfolios were primarily due to the release of reserves in those loan portfolios as a result of improved credit trends. Total delinquencies of $13.9 million at December 31, 2022 was a decrease of $3.3 million compared to total delinquencies of $17.2 million at December 31, 2021 primarily due to a decrease in residential loan delinquencies, partly offset by increases in consumer and HELOC loan portfolio delinquencies. The ratio of delinquent loans to total loans decreased from 0.33% of total outstanding loans at December 31, 2021 to 0.23% of total outstanding loans at December 31, 2022. Net charge-offs for 2022 were $1.4 million, a decrease of $2.2 million compared to $3.6 million in 2021 primarily due to a decrease in consumer loan portfolio net charge-offs.

Investment securities. Currently, ASB's investment portfolio consists of U.S. Treasury and federal agency obligations, mortgage-backed securities, corporate bonds and mortgage revenue bonds. ASB owns mortgage-backed securities issued or guaranteed by the U.S. government agencies or sponsored agencies, including the Federal National Mortgage Association (FNMA), Federal Home Loan Mortgage Corporation (FHLMC), Government National Mortgage Association (GNMA) and Small Business Administration (SBA). The weighted-average yield on investments during 2023, 2022 and 2020 was 1.76%, 1.76% and 1.52%, respectively. ASB did not maintain a portfolio of securities held for trading during 2023 and 2022.

As of December 31, 2023 and 2022, ASB had $1.2 billion and $1.3 billion, respectively, of investment securities that were purchased and classified as held-to-maturity. In October 2022, ASB transferred 66 available-for-sale investment securities with a fair value of $755 million to the held-to-maturity category. The investment securities were classified as held-to-maturity to enhance ASB's capital management in a rising rate environment. ASB considers the held-to-maturity classification of these investment securities to be appropriate as ASB has the positive intent and ability to hold these securities to maturity.

Principal and interest on mortgage-backed securities issued by FNMA, FHLMC, GNMA and SBA are guaranteed by the issuer and, in the case of GNMA and SBA, backed by the full faith and credit of the U.S. government. U.S. Treasury securities are also backed by the full faith of the U.S. government.

The net unrealized gains and losses on ASB's investment securities were primarily caused by movements in interest rates. All contractual cash flows of those investments are guaranteed by an agency of the U.S. government. Based upon ASB's evaluation at December 31, 2023 and 2022, there was no indicated impairment as ASB expects to collect the contractual cash flows for these investments. See "Investment securities" in Note 1 of the Consolidated Financial Statements for a discussion of securities impairment assessment.

As of December 31, 2023 and 2022, ASB did not have any private-issue mortgage-backed securities. ASB does not have any exposure to securities backed by subprime mortgages. See "Investment securities" in Note 5 of the Consolidated Financial Statements for a discussion of the allowance for credit losses for the investment securities portfolio.

The following table summarizes the current amortized cost of ASB's investment portfolio (excluding stock of the FHLB of Des Moines, which has no contractual maturity) and weighted average yields as of December 31, 2023. Mortgage-backed securities are shown separately because they are typically paid in monthly installments over a number of years.

(dollars in millions)	In 1 year or less	After 1 year through 5 years	After 5 years through 10 years	After 10 years	Mortgage-backed securities	Total[1]
U.S. Treasury and federal agency obligations	$ 1	$ 51	$ 20	$ —	$ —	$ 72
Mortgage-backed securities — issued or guaranteed by U.S. Government agencies or sponsored agencies	—	—	—	—	2,421	2,421
Corporate bonds	—	35	—	—	—	35
Mortgage revenue bonds[1]	—	—	14	—	—	14
	$ 1	$ 86	$ 34	$ —	$ 2,421	$ 2,542
Weighted average yield	2.03%	1.86%	3.27%	—%	2.49%	2.48%

1 Weighted average yield on the mortgage revenue bonds is computed on a tax equivalent basis using a federal statutory tax rate of 21%.

Stock in FHLB. As of December 31, 2023 and 2022, ASB's stock in FHLB of Des Moines was $14.7 million and $26.6 million, respectively, was carried at cost because it can only be redeemed at par. The amount that ASB is required to invest in FHLB stock is determined by FHLB requirements. In 2023, 2022 and 2021, ASB received cash dividends of $1.2 million, $702,000 and $327,000, respectively, on its FHLB Stock.

Deposits and other borrowings. Deposits continue to be the largest source of funds for ASB and are affected by market interest rates, competition and management's responses to these factors. In 2023, deposits decreased by $23.9 million as an outflow of core deposits was replaced with time certificates. Core deposit retention and sustained growth will remain challenging in the current rising interest rate environment. Advances from the FHLB of Des Moines, borrowings from Federal Reserve Bank and securities sold under agreements to repurchase and federal funds purchased continue to be additional sources of funds. ASB's costing liabilities consisted of 92% deposits and 8% borrowings as of December 31, 2023 and 2022.

ASB's deposits are obtained primarily from residents of Hawaii. Net deposit inflow or outflow, measured as the year-over-year difference in year-end deposits, was an outflow of $23.9 million in 2023, compared to an outflow of $2.5 million in 2022.

The following table presents the amount of time certificates of deposit of $250,000 or more, segregated by time remaining until maturity:

(in thousands)	Amount
Three months or less	$ 199,940
Greater than three months through six months	58,239
Greater than six months through twelve months	77,644
Greater than twelve months	12,357
	$ 348,180

As of December 31, 2023 and 2022, ASB had approximately $1.6 billion and $1.2 billion, respectively, of deposits that were uninsured.

Other borrowings consist of advances from the FHLB, borrowings from Federal Reserve Bank and securities sold under agreements to repurchases. See "Other borrowings" in Note 5 of the Consolidated Financial Statements. ASB may obtain advances from the FHLB of Des Moines provided that certain standards related to creditworthiness have been met. Advances are collateralized by a blanket pledge of certain notes held by ASB and the mortgages securing them. To the extent that advances exceed the amount of mortgage loan collateral pledged to the FHLB of Des Moines, the excess must be covered by qualified marketable securities held under the control of and at the FHLB of Des Moines or at an approved third-party custodian. FHLB advances generally are available to meet seasonal and other withdrawals of deposit accounts, to expand lending and to assist in the effort to improve asset and liability management. FHLB advances are made pursuant to several different credit programs offered from time to time by the FHLB of Des Moines. Securities sold under agreements to repurchase are accounted for as financing transactions and the obligations to repurchase these securities are recorded as liabilities in the consolidated balance sheets. ASB pledges investment securities as collateral for securities sold under agreements to repurchase. All such agreements are subject to master netting arrangements, which provide for conditional right of set-off in case of default by either party; however, ASB presents securities sold under agreements to repurchase on a gross basis in the balance sheet.

The increase in other borrowings in 2023 was due to an increase in borrowings from Federal Reserve Bank offset by decreases in FHLB advances and repurchase agreements. Other borrowings continued to be a funding source for loan portfolio growth. The increase in other borrowings in 2022 was due to increases in FHLB advances and business retail repurchase agreements, which were sources of funding for the loan portfolio growth as deposit growth slowed in 2022.

As of December 31, 2023, the unused borrowing capacity with the FHLB of Des Moines was $1.9 billion. The FHLB of Des Moines continues to be an important source of liquidity for ASB. See "Liquidity and capital resources" below for changes in the unused borrowing capacity with the FHLB of Des Moines.

Other factors. Interest rate risk is a significant risk of ASB's operations and also represents a market risk factor affecting the fair value of ASB's investment securities. Increases and decreases in prevailing interest rates generally translate into decreases and increases in the fair value of the investment securities, respectively. In addition, changes in credit spreads also impact the fair values of the investment securities.

As of December 31, 2023, ASB had an unrealized loss, net of taxes, on available-for-sale investment securities (including securities pledged for repurchase agreements) in accumulated other comprehensive income (AOCI) of $150.4 million compared to an unrealized loss, net of taxes, of $181.9 million as of December 31, 2022. See "Quantitative and Qualitative Disclosures About Market Risk."

Legislation and regulation. ASB is subject to extensive regulation, principally by the OCC and the FDIC. Depending on ASB's level of regulatory capital and other considerations, these regulations could restrict the ability of ASB to compete with other institutions and to pay dividends to its shareholder. See the discussion below under "Liquidity and capital resources." Also see "Federal Deposit Insurance Corporation assessment" in Note 5 of the Consolidated Financial Statements.

Final Capital Rules. On July 2, 2013, the FRB finalized its rule implementing the Basel III regulatory capital framework. The final rules applied to banking organizations of all sizes and types regulated by the FRB and the OCC, except bank holding companies subject to the FRB's Small Bank Holding Company Policy Statement and Savings & Loan Holding Companies (SLHCs) substantially engaged in insurance underwriting or commercial activities. HEI currently meets the requirements of the exemption as a top-tier grandfathered unitary SLHC that derived, as of June 30 of the previous calendar year, either 50% or more of its total consolidated assets or 50% or more of its total revenues on an enterprise-wide basis (calculated under GAAP) from activities that are not financial in nature pursuant to Section 4(k) of the Bank Holding Company Act. The FRB is temporarily excluding these SLHCs from the final rule while it considers a proposal relating to capital and other requirements for SLHC intermediate holding companies (such as ASB Hawaii). The FRB indicated that it would release a proposal on intermediate holding companies that would specify the criteria for establishing and transferring activities to intermediate holding companies and propose to apply the FRB's capital requirements to such intermediate holding companies. The FRB has not yet issued such a proposal, or a proposal on how to apply the Basel III capital rules to SLHCs that are substantially engaged in commercial or insurance underwriting activities, such as grandfathered unitary SLHCs like HEI.

Pursuant to the final rule and consistent with the proposals, all banking organizations, including covered holding companies, would initially be subject to the following minimum regulatory capital requirements: a common equity Tier 1 capital ratio of 4.5%, a Tier 1 capital ratio of 6%, a total capital ratio of 8% of risk-weighted assets and a Tier 1 leverage ratio of 4%, and these requirements would increase in subsequent years. In order to avoid restrictions on capital distributions and discretionary bonus payments to executive officers, the final rule requires a banking organization to hold a buffer of common equity Tier 1 capital above its minimum capital requirements in an amount greater than 2.5% of total risk-weighted assets (capital conservation buffer).

Subject to the timing and final outcome of the FRB's SLHC intermediate holding company proposal, HEI anticipates that the capital requirements in the final rule will eventually be effective for HEI or ASB Hawaii as well. If the capital requirements were currently applicable to HEI, management believes HEI would satisfy the capital requirements, including the capital conservation buffer. Management cannot predict what final rule the FRB may adopt concerning intermediate holding companies or their impact on ASB Hawaii, if any.

With Tier 1 leverage, common equity, Tier 1 capital and total capital ratios of 7.7%, 12.3%, 12.3% and 13.4%, respectively as of December 31, 2023, ASB's regulatory capital ratios exceeded the minimum regulatory capital requirements of 4.0%, 4.5%, 6.0% and 8.0%, respectively. See Bank - Regulation in HEI's "Item 1. Business" for a description of the changes to the community bank leverage ratio framework.

Liquidity and capital resources.

December 31	**2023**	**% change**	**2022**	**% change**
(dollars in millions)				
Total assets	$ 9,673	1	$ 9,546	4
Investment securities	2,338	(13)	2,681	(13)
Loans held for investment, net	6,106	3	5,907	15
Deposit liabilities	8,146	—	8,170	—
Other bank borrowings	750	8	695	687

As of December 31, 2023, ASB was one of Hawaii's largest financial institutions based on assets of $9.7 billion and deposits of $8.1 billion.

ASB's principal sources of liquidity are customer deposits, other borrowings and the maturity and repayment of portfolio loans and securities. The Bank's liquidity remains at satisfactory levels. ASB used investment security portfolio repayments and other borrowings to fund its strong loan production. ASB's deposits as of December 31, 2023 were $24 million lower than December 31, 2022. ASB's sources of borrowings include advances from the FHLB, borrowings from Federal Reserve Bank and securities sold under agreements to repurchase from broker/dealers and commercial account holders. As of December 31, 2023, ASB had $200 million of FHLB borrowings outstanding. ASB is approved to borrow from the FHLB up to 45% of ASB's assets to the extent it provides qualifying collateral and holds sufficient FHLB stock. As of December 31, 2023, ASB's unused FHLB borrowing capacity was approximately $1.9 billion.

As of December 31, 2023, ASB had no securities sold under agreements to repurchase.

As of December 31, 2023, ASB had commitments to borrowers for loans and unused lines and letters of credit of $1.8 billion, of which, commitments to lend to borrowers whose loan terms have been modified in troubled debt restructurings were nil. Management believes ASB's current sources of funds will enable it to meet these obligations while maintaining liquidity at satisfactory levels.

As of December 31, 2023 and 2022, ASB had $28.4 million and $16.5 million of loans on nonaccrual status, respectively, or 0.5% and 0.3%, respectively, of net loans outstanding. As of December 31, 2023 and 2022, ASB had nil and $0.1 million, respectively, of real estate acquired in settlement of loans.

In 2023, operating activities provided cash of $108 million. Net cash of $179 million was provided by investing activities primarily due to proceeds from sale of securities of $170 million, receipt of repayments from available-for-sale investment securities of $149 million, proceeds from sale of commercial loans of $95 million, repayments from held-to-maturity investment securities of $67 million offset by net redemption of stock from the FHLB of $12 million, net increase in loans receivable of $285 million, purchases of loans held for investment of $26 million and additions to premises and equipment of $6 million. Financing activities used net cash of $8 million primarily due to a net decrease in short-term borrowings of $414 million, a net decrease in repurchase agreements of $183 million, a net decrease in deposit liabilities of $122 million and common stock dividends to HEI (through ASB Hawaii) of $39 million offset by net borrowings from Federal Reserve Bank of $550 million and advances from FHLB of $200 million.

ASB believes that maintaining a satisfactory regulatory capital position provides a basis for public confidence, affords protection to depositors, helps to ensure continued access to capital markets on favorable terms and provides a foundation for growth. FDIC regulations restrict the ability of financial institutions that are not well-capitalized to compete on the same terms as well-capitalized institutions, such as by offering interest rates on deposits that are significantly higher than the rates offered by competing institutions. As of December 31, 2023, ASB was well-capitalized (see Note 5 of the Consolidated Financial Statements for ASB's capital ratios).

For a discussion of ASB dividends, see "Common stock equity" in Note 5 of the Consolidated Financial Statements.

See "Commitments" in Note 5 of the Consolidated Financial Statements for a discussion of commitments and contingencies and off-balance sheet arrangements.

Material estimates and critical accounting policies. Also see "Material estimates and critical accounting policies" for Consolidated HEI above.

Allowance for credit losses. The Company considers the policies related to the allowance for credit losses as critical to the financial statement presentation. The allowance for credit losses applies to financial assets subject to credit losses and measured at amortized cost and certain off-balance sheet credit exposures. This includes, but is not limited to loans, loan commitments and held-to-maturity securities. In addition, the accounting for credit losses on available-for-sale (AFS) debt securities and purchased financial assets with credit deterioration were amended. The other-than-temporary impairment model of accounting for credit losses on AFS debt securities was replaced with an estimate of expected credit losses only when the fair value is below the amortized cost of the asset. The credit loss models use a probability-of-default, loss given default and exposure at default methodology to estimate the expected credit losses. Within each model or calculation, loans are further segregated based on additional risk characteristics specific to that loan type, such as risk rating, Fair Isaac Corporation (FICO) score, bankruptcy score, age of loan and collateral. The Company uses both internal and external historical data, as appropriate, and a blend of economic forecasts to estimate credit losses over a reasonable and supportable forecast period and then reverts to a longer-term historical loss experience to arrive at lifetime expected credit losses. The reversion period incorporates forward-looking expectations about repayments (including prepayments) as determined by the Company's asset liability management system.

ASB disaggregates the loan portfolio into loan segments for purposes of determining the allowance for credit losses. Commercial, commercial real estate, and commercial construction loans are defined as non-homogeneous loans. ASB utilizes a risk rating system for evaluating the credit quality of such loans. Loans are rated based on the degree of risk at origination and periodically thereafter, as appropriate. Values are applied separately to the probability of default (borrower risk) and loss given default (transaction risk). ASB utilizes a numerical-based, risk rating "PD Model" that takes into consideration fiscal year-end financial information of the borrower and identified financial attributes including retained earnings, operating cash flows, interest coverage, liquidity and leverage that demonstrate a strong correlation with default to assign default probabilities at the borrower level. In addition, a loss given default value is assigned to each loan to measure loss in the event of default based on loan specific features such as collateral that mitigates the amount of loss in the event of default. Together the PD Model and loss given default construct provide a quantitative, data driven and consistent framework for measuring risk within the portfolio, on a loan by loan basis and for the ultimate collectability of each loan.

Residential, consumer and credit scored business loans are considered homogeneous loans, which are typically underwritten based on common, uniform standards. For the homogeneous portfolio, the quality of the loan is best indicated by the repayment performance of an individual borrower. ASB supplements performance data with external credit bureau data and credit scores such as the FICO score on a quarterly basis. ASB has built portfolio loss models for each major segment based on the combination of internal and external data to predict the probability of default at the loan level.

ASB also considers qualitative factors in determining the allowance for credit losses. These include but are not limited to adjustments for changes in policies and procedures in underwriting, monitoring or collections, economic conditions, portfolio mix, lending and risk management personnel, results of internal audit and quality control reviews, collateral values and any concentrations of credit.

The reserve for unfunded commitments is maintained at a level believed by management to be sufficient to cover expected losses related to unfunded credit facilities and is included in accounts payable and other liabilities in the consolidated balance sheets. The determination of the adequacy of the reserve is based upon an evaluation of the unfunded credit facilities, including an assessment of historical commitment utilization experience, credit risk grading and historical loss rates. This process takes into consideration the same risk elements that are analyzed in the determination of the adequacy of the allowance for credit losses, as discussed above. Net adjustments to the reserve for unfunded commitments are included in the provision for credit losses in the consolidated statements of income.

Management believes its allowance for credit losses is adequate to cover expected credit losses in the loan portfolio. However, such estimates are based on currently available information and historical experience, and future adjustments may be required from time to time to the allowance for credit losses based on new information and changes that occur (e.g., due to changes in economic conditions, particularly in Hawaii). Actual losses could differ from management's estimates, and these differences and subsequent adjustments could be material.

Fair value. Fair value estimates are based on the price that would be received to sell an asset, or paid upon the transfer of a liability, in an orderly transaction between market participants at the measurement date. The fair value estimates are generally determined based on assumptions that market participants would use in pricing the asset or liability and are based on market data obtained from independent third party sources. However, in certain cases, ASB uses its own assumptions based on the best information available in certain circumstances. These valuations are estimates at a specific point in time, based on relevant market information, information about the financial instrument and judgments regarding future expected loss experience, economic conditions, risk characteristics of various financial instruments and other factors. These estimates do not reflect any premium or discount that could result if ASB were to sell its entire holdings of a particular financial instrument at one time. Because no active trading market exists for a portion of its financial instruments, fair value estimates cannot be determined with precision. Changes in the underlying assumptions used, including discount rates and estimates of future cash flows, could significantly affect the estimates. In addition, the tax ramifications related to the realization of the unrealized gains and losses could have a significant effect on fair value estimates, but have not been considered in making such estimates.

ASB classifies its financial assets and liabilities that are measured at fair value in accordance with the three-level valuation hierarchy. Level 1 valuations are based on quoted prices, unadjusted for identical instruments traded in active markets. Level 2 valuations are based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active or model-based techniques for which all significant assumptions are observable in the market. Level 3 valuations are based on model-based techniques that use at least one significant assumption not observable in the market or significant management judgment or estimation. See "Fair value measurements" in Note 1 of the Consolidated Financial Statements).

Significant assets measured at fair value on a recurring basis include ASB's mortgage-backed securities available for sale. These instruments are priced using an external pricing service and are classified as Level 2 within the fair value hierarchy. The third-party pricing services use a variety of methods to determine fair value including quoted prices for similar securities in an active market, yield spreads for similar trades, adjustments for liquidity, size, collateral characteristics, historic and generic prepayment speeds and other observable market factors. To enhance the robustness of the pricing process, ASB compares its standard third-party vendor's price with that of another third-party vendor. If the prices are within an acceptable tolerance range, the price of the standard vendor will be accepted. If the variance is beyond the tolerance range, an evaluation will be conducted by the investment manager and a challenge to the price may be made. Fair value in such cases will be based on the value that best reflects the data and observable characteristics of the security. In all cases, the fair value used will have been independently determined by a third-party pricing vendor or non-affiliated broker.

Fair value is also used on a nonrecurring basis to evaluate certain assets for impairment or for disclosure purposes. Examples of nonrecurring uses of fair value include mortgage servicing rights accounted for by the amortization method, loan impairments for certain loans, real estate acquired in settlement of loans and goodwill.

See "Investment securities" and "Derivative financial instruments" in Note 5 and Note 17 of the Consolidated Financial Statements for additional information regarding ASB's fair value measurements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

HEI and Hawaiian Electric (in the case of Hawaiian Electric, only the information related to Hawaiian Electric and its subsidiaries is applicable):

The Company manages various market risks in the ordinary course of business, including credit risk and liquidity risk. The Company believes the electric utility and the "other" segment's exposures to these two risks were not material as of December 31, 2023.

Credit risk for ASB is the risk that borrowers or issuers of securities will not be able to repay their obligations to the Bank. Credit risk associated with ASB's lending portfolios is controlled through its underwriting standards, loan rating of commercial and commercial real estate loans, on-going monitoring by loan officers, credit review and quality control functions in these lending areas and adequate allowance for credit losses. Credit risk associated with the securities portfolio is mitigated through investment portfolio limits, experienced staff working with analytical tools, monthly fair value analysis and on-going monitoring and reporting such as investment watch reports and loss sensitivity analysis. See "Allowance for credit losses" in Item 7 above and in Note 5 of the Consolidated Financial Statements.

Liquidity risk for ASB is the risk that the Bank will not meet its obligations when they become due. Liquidity risk is mitigated by ASB's asset/liability management process, on-going analytical analysis, monitoring and reporting information such as weekly cash-flow analyses and maintenance of liquidity contingency plans.

The Utilities are exposed to some commodity price risk primarily related to their fuel supply and IPP contracts. The Utilities' commodity price risk is substantially mitigated so long as they have their current ECRCs in their rate schedules, but have limited exposure through the fuel cost risk-sharing mechanism, which apportions 2% of the fuel cost risk to the utilities (and 98% to ratepayers) and has a maximum exposure (or benefit) of $3.7 million. The Utilities currently have no hedges against its commodity price risk.

The Company currently has no direct exposure to market risk from trading activities nor foreign currency exchange rate risk.

The Company considers interest rate risk to be a very significant market risk as it could potentially have a significant effect on the Company's results of operations, financial condition and liquidity, especially as it relates to ASB, but also as it may affect the discount rate used to determine retirement benefit liabilities and minimum contributions, the market value of retirement benefit plans' assets, borrowing costs and the Utilities' allowed rates of return. Interest rate risk can be defined as the exposure of the Company's earnings to adverse movements in interest rates.

Bank interest rate risk

The Company's success is dependent, in part, upon ASB's ability to manage interest rate risk. ASB's interest-rate risk profile is strongly influenced by its primary business of making fixed-rate residential mortgage loans and taking in retail deposits. Large mismatches in the amounts or timing between the maturity or repricing of interest sensitive assets or liabilities could adversely affect ASB's earnings and the market value of its interest-sensitive assets and liabilities in the event of significant changes in the level of interest rates. Many other factors also affect ASB's exposure to changes in interest rates, such as general economic and financial conditions, customer preferences and competition for loans or deposits.

ASB's Asset/Liability Management Committee (ALCO), whose voting members are officers and employees of ASB, is responsible for managing interest rate risk and carrying out the overall asset/liability management objectives and activities of ASB as approved by the ASB Board of Directors. ALCO establishes policies under which management monitors and coordinates ASB's assets and liabilities.

See Note 5 of the Consolidated Financial Statements for a discussion of the use of rate lock commitments on loans held for sale and forward sale contracts to manage some interest rate risk associated with ASB's residential loan sale program.

Management of ASB measures interest-rate risk using simulation analysis with an emphasis on measuring changes in net interest income (NII) and the market value of interest-sensitive assets and liabilities in different interest-rate environments. The simulation analysis is performed using a dedicated asset/liability management software system enhanced with a mortgage prepayment model and a collateralized mortgage obligation database. The simulation software is capable of generating scenario-specific cash flows for all instruments using the specified contractual information for each instrument and product specific prepayment assumptions for mortgage loans and mortgage-backed securities.

NII sensitivity analysis measures the change in ASB's twelve-month, pretax NII in alternate interest rate scenarios. NII sensitivity is measured as the change in NII in the alternate interest-rate scenarios as a percentage of the base case NII. The base case interest-rate scenario is established using the current yield curve and assumes interest rates remain constant over the next twelve months. The alternate scenarios are created by assuming "rate ramps" or gradual interest changes and accomplished by moving the yield curve in a parallel fashion, over the next twelve-month period, in increments of +/- 100 basis points. The simulation model forecasts scenario-specific principal and interest cash flows for the interest-bearing assets and liabilities, and the NII is calculated for each scenario. Key balance sheet modeling assumptions used in the NII sensitivity analysis include: the size of the balance sheet remains relatively constant over the simulation horizon and maturing assets or liabilities are reinvested in similar instruments in order to maintain the current mix of the balance sheet. In addition, assumptions are made about the prepayment behavior of mortgage-backed assets, future pricing spreads for new assets and liabilities and the speed and magnitude with which deposit rates change in response to changes in the overall level of interest rates. Other NII sensitivity analysis may include scenarios such as yield curve twists or non-static balance sheet changes (such as changes to key balance sheet drivers).

Consistent with OCC guidelines, the market value or economic capitalization of ASB is measured as economic value of equity (EVE). EVE represents the theoretical market value of ASB's net worth and is defined as the present value of expected net cash flows from existing assets minus the present value of expected cash flows from existing liabilities plus the present value of expected net cash flows from existing off-balance sheet contracts. Key assumptions used in the calculation of ASB's EVE include the prepayment behavior of loans and investments, the possible distribution of future interest rates, pricing spreads for assets and liabilities in the alternate scenarios and the rate and balance behavior of deposit accounts with indeterminate maturities. EVE is calculated in multiple scenarios. As with the NII simulation, the base case is represented by the current yield curve. Alternate scenarios are created by assuming immediate parallel shifts in the yield curve in increments of +/- 100 basis points (bp) up to + 300 bp. The change in EVE is measured as the change in EVE in a given rate scenario from the base case and expressed as a percentage. To gain further insight into the interest rate risk profile, additional analysis is periodically performed in alternate scenarios including rate shifts of greater magnitude and changes in key balance sheet drivers.

ASB’s interest-rate risk sensitivity measures as of December 31, 2023 and 2022 constitute “forward-looking statements” and were as follows:

Change in interest rates (basis points)	Change in NII (gradual change in interest rates) December 31, 2023	Change in NII (gradual change in interest rates) December 31, 2022	Change in EVE (instantaneous change in interest rates) December 31, 2023	Change in EVE (instantaneous change in interest rates) December 31, 2022
+300	2.1 %	(0.1)%	2.7 %	5.1%
+200	1.4	—	2.5	3.8
+100	0.7	—	1.7	2.1
-100	(1.0)	(0.3)	(2.3)	(3.4)
-200	(2.2)	(0.9)	(5.4)	(7.8)
-300	(3.5)	(1.7)	(10.3)	(13.8)

ASB’s NII risk profile was more asset sensitive as of December 31, 2023, compared to December 31, 2022, due to higher cash balances and additional floating-rate commercial loans.

EVE sensitivity was lower as of December 31, 2023, compared to December 31, 2022, due to a shift in ASB’s liability mix as longer duration core deposits were replaced by rate-sensitive deposits and shorter-term wholesale funding.

The computation of the prospective effects of hypothetical interest rate changes on the NII sensitivity and the percentage change in EVE is based on numerous assumptions, including relative levels of market interest rates, loan prepayments, balance changes and pricing strategies, and should not be relied upon as indications of actual results. To the extent market conditions and other factors vary from the assumptions used in the simulation analysis, actual results may differ materially from the simulation results. NII sensitivity analysis measures the change in ASB’s twelve-month, pretax NII in alternate interest rate scenarios, and is intended to help management identify potential exposures in ASB’s current balance sheet and formulate appropriate strategies for managing interest rate risk. The simulation does not contemplate any actions that ASB management might undertake in response to changes in interest rates. Further, the changes in NII vary in the twelve-month simulation period and are not necessarily evenly distributed over the period. These analyses are for analytical purposes only and do not represent management’s views of future market movements, the level of future earnings, or the timing of any changes in earnings within the twelve-month analysis horizon. The actual impact of changes in interest rates on NII will depend on the magnitude and speed with which rates change, actual changes in ASB’s balance sheet, and management’s responses to the changes in interest rates.

Other than bank interest rate risk

The Company’s general policy is to manage “other than bank” interest rate risk through use of a combination of short-term debt, long-term debt and preferred securities. As of December 31, 2023, the Company was exposed to “other than bank” interest rate risk because of its restricted access to capital markets and other sources of debt and equity financings, including the impact of interest rates on the revolving credit facility draws, the impact of interest rates on the discount rate and the market value of plan assets used to determine retirement benefits expenses and obligations (see “Pension and other postretirement benefits obligations” in HEI’s MD&A and “Retirement benefits” in Notes 1 and 11 of the Consolidated Financial Statements) and the possible effect of interest rates on the electric utilities’ allowed rates of return. Other than these exposures, management believes its exposure to “other than bank” interest rate risk is not material. However, continued restricted access to capital markets and other sources of debt and equity financings for an extended period of time may adversely impact the Company’s financial condition, liquidity, cash flows and results of operations. The Company’s long-term debt, in the form of borrowings of proceeds of revenue bonds, privately-placed senior notes and bank term loans, is predominately at fixed rates (see Note 17 of the Consolidated Financial Statements for the fair value of long-term debt, net-other than bank).

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

HEI and Hawaiian Electric:

Report of Independent Registered Public Accounting Firm

To the shareholders and the Board of Directors of Hawaiian Electric Industries, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Hawaiian Electric Industries, Inc. and subsidiaries (the "Company") as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows, for each of the three years in the period ended December 31, 2023, and the related notes and the schedules listed in the Index at Item 15(a)(2) (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

Basis for Opinions

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Electric Utility Segment — Certain Regulatory Assets and Liabilities — Refer to Notes 1 and 4 to the financial statements

Critical Audit Matter Description

Hawaiian Electric Company, Inc. ("Hawaiian Electric" or the "Utility") is subject to rate regulation by the Hawaii Public Utility Commission (the "PUC") and accounts for the effects of regulation under Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 980, "Regulated Operations," as management believes that the operations of the Utility satisfy the criteria for regulatory accounting. The Company's continued accounting under ASC Topic 980 generally requires that rates are established by an independent, third-party regulator; rates are designed to recover the costs of providing service; and it is reasonable to assume that rates can be charged to, and collected from, customers.

Hawaiian Electric's rates are subject to regulatory rate-setting processes and earnings oversight. Rates are determined and approved in regulatory proceedings based on an analysis of the Utility's costs to provide utility service and a return on, and recovery of, Hawaiian Electric's investment in the utility business.

We identified the impact of rate regulation as a critical audit matter due to the significant judgments made by management to support its assertions about the applicability of the specialized rules and to evaluate the likelihood of (1) recovery in future rates of certain incurred costs and (2) the refund to customers of certain amounts. Performing audit procedures related to these judgments required significant auditor judgement and specialized knowledge.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the application of specialized rules to account for rate regulation included the following, among others:

- We tested the effectiveness of management's controls over (1) the evaluation of the application of specialized rules to account for rate regulation and (2) the evaluation of the likelihood of (a) the recovery in future rates of costs deferred as regulatory assets and (b) refunds to customers reported as regulatory liabilities.
- We evaluated the Company's conclusion that it should apply the specialized rules to account for the effects of rate regulation.
- We evaluated the Company's disclosures related to the impacts of rate regulation, including the balances recorded and regulatory developments.
- We read relevant regulatory orders issued by the PUC for the Utility to assess the likelihood of recovery in future rates or of a future reduction in rates based on precedents of the PUC's treatment of similar costs under similar circumstances.
- For certain regulatory assets and liabilities we evaluated whether the amounts recorded were in accordance with ASC Topic 980.

Allowance for Credit Losses — Refer to Notes 1 and 5 to the financial statements

Critical Audit Matter Description

The allowance for credit losses is a material estimate of the Company and is based on the composition, characteristics, and quality of the loans, as well as the prevailing economic conditions and reasonable and supportable forecasts. The Company's credit loss models use a probability-of-default, loss given default and exposure at default methodology to estimate the expected credit losses.

The Company also incorporates qualitative factors to adjust the historical loss rates or other static sources as these rates may not be an accurate indicator of expected losses in the current portfolio. These qualitative factors include, but are not limited to, adjustments for changes in policies and procedures in underwriting, monitoring or collections, economic conditions, portfolio mix, lending and risk management personnel, results of internal audit and quality control reviews, collateral values, and any concentrations of credit.

The selection of relevant and appropriate qualitative factors in calculating the allowance for credit losses requires significant management judgment. Given the magnitude of the qualitative factors and significant amount of judgment required by management in developing the qualitative component of the overall allowance, performing audit procedures to evaluate the reasonableness of the allowance for credit losses required a high degree of auditor judgment, an increased level of effort, and the need to involve more experienced audit professionals.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the qualitative factors utilized within the allowance for credit losses included the following, among others:

- We tested the effectiveness of controls over the allowance for credit losses, including management's controls over the respective qualitative factors.
- We evaluated the reasonableness and conceptual soundness of the allowance for credit losses modeling framework, including the use of qualitative factors.
- We tested the mathematical accuracy of the calculation of the qualitative allowance for credit losses as well as the accuracy and completeness of data used as inputs to the determination of qualitative factors.
- We evaluated the qualitative factors applied to the historical loss rates, including assessing the basis for the factors and the reasonableness of the qualitative factors used in the allowance for credit losses.
- We evaluated the directional consistency and magnitude of the qualitative adjustments, as well as the absolute value of the allowance for credit losses attributable to the qualitative adjustments.
- In order to identify potential bias in the determination of the allowance for credit losses, we performed analytical analysis, including retrospective review, where we compared the estimate of losses to actual losses, analyzed ratios of the allowance for credit losses to loans and other relevant metrics, such as losses and nonperforming loans, and performed peer analysis where we compared relevant metrics to comparable financial institutions, and evaluated the relevance of the underlying data used to determine qualitative factors, to identify potential bias in the determination of the allowance for credit losses.

Contingencies — Tort-Related Legal Claims - Refer to Notes 1 and 2 to the financial statements

Critical Audit Matter Description

Multiple civil and class action lawsuits (collectively the "tort-related legal claims") have been filed against the Company, its subsidiaries, and other defendants related to a number of brush fires that occurred on August 8, 2023, on the island of Maui. Most of these lawsuits allege that the defendants were responsible for, and/or negligent in failing to prevent or respond to the wildfires that led to the property destruction and loss of life. Other claims include, among other things, personal injury, wrongful death, emotional distress and inverse condemnation.

The Company reviews loss contingencies at least quarterly. When a loss is probable and reasonably estimable, a liability is recorded in the amount of the estimable loss. If it is reasonably possible that a loss may have been incurred and the effect on the financial statements could be material, the Company discloses the nature of the loss contingency and an estimate of the possible loss or range of loss or a statement that such an estimate cannot be made within the notes to the financial statements.

We identified the evaluation of the loss contingencies related to the tort-related legal claims, and related disclosures, as a critical audit matter because auditing management's judgment in determining the appropriate accounting and disclosures for the tort-related legal claims required significant auditor judgment.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the loss contingency involving the tort-related legal claims included the following, among others:

- We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls over management's evaluation of the tort-related legal claims, including controls related to the Company's assessment of the accounting and related disclosures based on the most recent facts and circumstances.
- We inquired of the Company's internal and external legal counsel to understand the nature and status of the tort-related legal claims and the basis for the Company's accounting conclusions related to the tort-related legal claims.
- We requested and received written responses from internal and external legal counsel.

- We obtained and evaluated management’s evaluation of the tort-related legal claims loss contingency. As part of our procedures, we made inquiries of management and the audit committee to evaluate and corroborate our understanding obtained through inquiries of internal and external legal counsel. We also performed public domain searches for evidence contrary to management’s analysis.
- We evaluated management’s recorded loss contingency for the tort-related legal claims and their conclusion of the reasonably estimable amount, as well as management’s determination that a range of loss in excess of the recorded loss contingency cannot be reasonably estimated.
- We consulted with professionals in our firm with expertise related to accounting for loss contingencies.
- We evaluated any events subsequent to December 31, 2023, that might impact our evaluation of the tort-related claims loss contingency, including any related accrual or disclosure.
- We obtained written representations from executives of the Company.
- We read the Company’s related disclosures and evaluated them for consistency with the evidence obtained from our audit procedures.

/s/ Deloitte & Touche LLP

Honolulu, Hawaii
February 29, 2024

We have served as the Company’s auditor since 2017.

Report of Independent Registered Public Accounting Firm

To the shareholder and the Board of Directors of Hawaiian Electric Company, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets and statements of capitalization of Hawaiian Electric Company, Inc. and subsidiaries (the "Company") as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, changes in common stock equity, and cash flows, for each of the three years in the period ended December 31, 2023, and the related notes and the schedule listed in the Index at Item 15(a)(2) (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Certain Regulatory Assets and Liabilities — Refer to Notes 1 and 4 to the financial statements

Critical Audit Matter Description

The Company is subject to rate regulation by the Hawaii Public Utility Commission (the “PUC”) and accounts for the effects of regulation under Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 980, “Regulated Operations,” as management believes that the operations of the Company satisfy the criteria for regulatory accounting. The Company’s continued accounting under ASC Topic 980 generally requires that rates are established by an independent, third-party regulator; rates are designed to recover the costs of providing service; and it is reasonable to assume that rates can be charged to, and collected from, customers.

The Company’s rates are subject to regulatory rate-setting processes and earnings oversight. Rates are determined and approved in regulatory proceedings based on an analysis of the Company’s costs to provide utility service and a return on, and recovery of, the Company’s investment in the utility business.

We identified the impact of rate regulation as a critical audit matter due to the significant judgments made by management to support its assertions about the applicability of the specialized rules and to evaluate the likelihood of (1) recovery in future rates of certain incurred costs and (2) the refund to customers of certain amounts. Performing audit procedures related to these judgments required significant auditor judgement and specialized knowledge.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the application of specialized rules to account for rate regulation included the following, among others:

- We tested the effectiveness of management's controls over (1) the evaluation of the application of specialized rules to account for rate regulation and (2) the evaluation of the likelihood of (a) the recovery in future rates of costs deferred as regulatory assets and (b) refunds to customers reported as regulatory liabilities.
- We evaluated the Company's conclusion that it should apply the specialized rules to account for the effects of rate regulation.
- We evaluated the Company's disclosures related to the impacts of rate regulation, including the balances recorded and regulatory developments.
- We read relevant regulatory orders issued by the PUC for the Company to assess the likelihood of recovery in future rates or of a future reduction in rates based on precedents of the PUC's treatment of similar costs under similar circumstances.
- For certain regulatory assets and liabilities we evaluated whether the amounts recorded were in accordance with ASC Topic 980.

Contingencies — Tort-Related Legal Claims - Refer to Notes 1 and 2 to the financial statements

Critical Audit Matter Description

Multiple civil and class action lawsuits (collectively the "tort-related legal claims") have been filed against the Company, its subsidiaries, and other defendants related to a number of brush fires that occurred on August 8, 2023, on the island of Maui. Most of these lawsuits allege that the defendants were responsible for, and/or negligent in failing to prevent or respond to the wildfires that led to the property destruction and loss of life. Other claims include, among other things, personal injury, wrongful death, emotional distress and inverse condemnation.

The Company reviews loss contingencies at least quarterly. When a loss is probable and reasonably estimable, a liability is recorded in the amount of the estimable loss. If it is reasonably possible that a loss may have been incurred and the effect on the financial statements could be material, the Company discloses the nature of the loss contingency and an estimate of the possible loss or range of loss or a statement that such an estimate cannot be made within the notes to the financial statements.

We identified the evaluation of the loss contingencies related to the tort-related legal claims, and related disclosures, as a critical audit matter because auditing management's judgment in determining the appropriate accounting and disclosures for the tort-related legal claims required significant auditor judgment.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the loss contingency involving the tort-related legal claims included the following, among others:

- We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls over management's evaluation of the tort-related legal claims, including controls related to the Company's assessment of the accounting and related disclosures based on the most recent facts and circumstances.
- We inquired of the Company's internal and external legal counsel to understand the nature and status of the tort-related legal claims and the basis for the Company's accounting conclusions related to the tort-related legal claims.
- We requested and received written responses from internal and external legal counsel.
- We obtained and evaluated management's evaluation of the tort-related legal claims loss contingency. As part of our procedures, we made inquiries of management and the audit committee to evaluate and corroborate our understanding obtained through inquiries of internal and external legal counsel. We also performed public domain searches for evidence contrary to management's analysis.
- We evaluated management's recorded loss contingency for the tort-related legal claims and their conclusion of the reasonably estimable amount, as well as management's determination that a range of loss in excess of the recorded loss contingency cannot be reasonably estimated.
- We consulted with professionals in our firm with expertise related to accounting for loss contingencies.

- We evaluated any events subsequent to December 31, 2023, that might impact our evaluation of the tort-related claims loss contingency, including any related accrual or disclosure.
- We obtained written representations from executives of the Company.
- We read the Company's related disclosures and evaluated them for consistency with the evidence obtained from our audit procedures.

/s/ Deloitte & Touche LLP

Honolulu, Hawaii
February 29, 2024

We have served as the Company's auditor since 2017.

Consolidated Statements of Income

Hawaiian Electric Industries, Inc. and Subsidiaries

Years ended December 31	2023	2022	2021
(in thousands, except per share amounts)			
Revenues			
Electric utility	$ 3,269,521	$ 3,408,587	$ 2,539,636
Bank	394,663	321,068	306,398
Other	17,982	12,330	4,345
Total revenues	3,682,166	3,741,985	2,850,379
Expenses			
Electric utility	2,967,363	3,109,396	2,260,078
Bank	317,051	219,550	178,195
Other	45,148	31,966	26,040
Total expenses	3,329,562	3,360,912	2,464,313
Operating income (loss)			
Electric utility	302,158	299,191	279,558
Bank	77,612	101,518	128,203
Other	(27,166)	(19,636)	(21,695)
Total operating income	352,604	381,073	386,066
Retirement defined benefits credit—other than service costs	4,768	4,411	5,848
Interest expense, net – other than on deposit liabilities and other bank borrowings	(125,532)	(103,402)	(94,363)
Allowance for borrowed funds used during construction	5,201	3,416	3,250
Allowance for equity funds used during construction	15,164	10,574	9,534
Interest income	9,105	—	—
Gain (loss) on sales of investment securities, net and equity-method investment	(15,609)	8,123	528
Income before income taxes	245,701	304,195	310,863
Income taxes	44,573	61,167	62,807
Net income	201,128	243,028	248,056
Preferred stock dividends of subsidiaries	1,890	1,890	1,890
Net income for common stock	$ 199,238	$ 241,138	$ 246,166
Basic earnings per common share	$ 1.82	$ 2.20	$ 2.25
Diluted earnings per common share	$ 1.81	$ 2.20	$ 2.25
Weighted-average number of common shares outstanding	109,739	109,434	109,282
Net effect of potentially dilutive shares (share-based compensation programs)	299	344	298
Weighted-average shares assuming dilution	110,038	109,778	109,580

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Comprehensive Income

Hawaiian Electric Industries, Inc. and Subsidiaries

Years ended December 31	2023	2022	2021
(in thousands)			
Net income for common stock	$ 199,238	$ 241,138	$ 246,166
Other comprehensive income (loss), net of taxes:			
Net unrealized gains (losses) on available-for sale investment securities:			
Net unrealized gains (losses) on available-for sale investment securities arising during the period, net of taxes of $7,536, $(110,140) and $(18,903) for 2023, 2022 and 2021, respectively	20,589	(300,860)	(51,636)
Reclassification adjustment for net realized losses (gains) included in net income, net of taxes of $4,011, nil and $(142) for 2023, 2022 and 2021, respectively	10,954	—	(387)
Amortization of unrealized holding losses on held-to-maturity securities, net of taxes of $5,271, $1,462 and nil for 2023, 2022 and 2021, respectively	14,398	3,993	—
Derivatives qualified as cash flow hedges:			
Unrealized interest rate hedging gains (losses), net of taxes of $(58), $1,892 and $(108) for 2023, 2022 and 2021, respectively	(167)	5,457	(312)
Reclassification adjustment to net income, net of taxes of $(65), $60 and $13 for 2023, 2022 and 2021, respectively	(186)	172	37
Retirement benefit plans:			
Net gains arising during the period, net of taxes of $3,778, $65,174 and $53,068 for 2023, 2022 and 2021, respectively	10,854	188,020	153,121
Adjustment for amortization of prior service credit and net losses (gains) recognized during the period in net periodic benefit cost, net of taxes of $(535), $6,820 and $6,665 for 2023, 2022 and 2021, respectively	(1,560)	19,659	19,253
Reclassification adjustment for impact of D&Os of the PUC included in regulatory assets, net of taxes of $(2,846), $(69,345) and $(59,429) for 2023, 2022 and 2021, respectively	(8,204)	(199,936)	(171,345)
Other comprehensive income (loss), net of taxes	46,678	(283,495)	(51,269)
Comprehensive income attributable to Hawaiian Electric Industries, Inc.	$ 245,916	$ (42,357)	$ 194,897

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Balance Sheets

Hawaiian Electric Industries, Inc. and Subsidiaries

December 31		2023		2022
(dollars in thousands)				
ASSETS				
Cash and cash equivalents		$ 679,546		$ 199,877
Restricted cash		15,028		5,050
Accounts receivable and unbilled revenues, net		575,176		511,903
Available-for-sale investment securities, at fair value		1,136,439		1,429,667
Held-to-maturity investment securities, at amortized cost		1,201,314		1,251,747
Stock in Federal Home Loan Bank, at cost		14,728		26,560
Loans held for investment, net		6,106,438		5,906,690
Loans held for sale, at lower of cost or fair value		15,168		824
Property, plant and equipment, net				
Land	$ 106,999		$ 109,381	
Plant and equipment	8,695,942		8,427,749	
Right-of-use assets - finance lease	342,834		49,370	
Construction in progress	322,110		293,048	
	9,467,885		8,879,548	
Less – accumulated depreciation	(3,317,759)	6,150,126	(3,192,545)	5,687,003
Operating lease right-of-use assets		94,905		115,684
Regulatory assets		294,804		242,513
Other		877,959		824,536
Goodwill		82,190		82,190
Total assets		$ 17,243,821		$ 16,284,244
LIABILITIES AND SHAREHOLDERS' EQUITY				
Liabilities				
Accounts payable		$ 247,462		$ 251,460
Interest and dividends payable		51,206		21,333
Deposit liabilities		8,145,778		8,169,696
Short-term borrowings—other than bank		—		172,568
Other bank borrowings		750,000		695,120
Long-term debt, net—other than bank		2,842,429		2,384,980
Deferred income taxes		297,954		262,462
Operating lease liabilities		103,900		126,604
Finance lease liabilities		339,040		48,709
Regulatory liabilities		1,150,690		1,055,650
Defined benefit pension and other postretirement benefit plans liability		82,879		71,813
Other		853,349		787,057
Total liabilities		14,864,687		14,047,452
Preferred stock of subsidiaries - not subject to mandatory redemption		34,293		34,293
Commitments and contingencies (Notes 3 and 4)				
Shareholders' equity				
Preferred stock, no par value, authorized 10,000,000 shares; issued: none		—		—
Common stock, no par value, authorized 200,000,000 shares; issued and outstanding: 110,151,798 shares and 109,470,795 shares at December 31, 2023 and 2022, respectively		1,707,471		1,692,697
Retained earnings		926,720		845,830
Accumulated other comprehensive income (loss), net of taxes				
Net unrealized losses on securities	$ (282,963)		$ (328,904)	
Unrealized gains on derivatives	1,638		1,991	
Retirement benefit plans	(8,025)	(289,350)	(9,115)	(336,028)
Total shareholders' equity		2,344,841		2,202,499
Total liabilities and shareholders' equity		$ 17,243,821		$ 16,284,244

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Changes in Shareholders' Equity

Hawaiian Electric Industries, Inc. and Subsidiaries

(in thousands, except per share amounts)	Common stock Shares	Common stock Amount	Retained earnings	Accumulated other comprehensive income (loss)	Total
Balance, December 31, 2020	**109,181**	**$ 1,678,368**	**$ 660,398**	**$ (1,264)**	**$ 2,337,502**
Net income for common stock	—	—	246,166	—	246,166
Other comprehensive loss, net of tax benefits	—	—	—	(51,269)	(51,269)
Issuance of common stock:					
Share-based plans	131	5,027	—	—	5,027
Share-based expenses and other, net	—	2,101	—	—	2,101
Common stock dividends ($1.36 per share)	—	—	(148,643)	—	(148,643)
Balance, December 31, 2021	**109,312**	**1,685,496**	**757,921**	**(52,533)**	**2,390,884**
Net income for common stock	—	—	241,138	—	241,138
Other comprehensive loss, net of tax benefits	—	—	—	(283,495)	(283,495)
Issuance of common stock:					
Share-based plans	159	5,831	—	—	5,831
Share-based expenses and other, net	—	1,370	—	—	1,370
Common stock dividends ($1.40 per share)	—	—	(153,229)	—	(153,229)
Balance, December 31, 2022	**109,471**	**1,692,697**	**845,830**	**(336,028)**	**2,202,499**
Net income for common stock	—	—	199,238	—	199,238
Other comprehensive income, net of taxes	—	—	—	46,678	46,678
Issuance of common stock:					
Dividend reinvestment and stock purchase plan	537	6,612	—	—	6,612
Share-based plans	144	6,371	—	—	6,371
Share-based expenses and other, net	—	1,791	—	—	1,791
Common stock dividends ($1.08 per share)	—	—	(118,348)	—	(118,348)
Balance, December 31, 2023	**110,152**	**$ 1,707,471**	**$ 926,720**	**$ (289,350)**	**$ 2,344,841**

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Cash Flows

Hawaiian Electric Industries, Inc. and Subsidiaries

Years ended December 31	**2023**	**2022**	**2021**
(in thousands)			
Cash flows from operating activities			
Net income	$ 201,128	$ 243,028	$ 248,056
Adjustments to reconcile net income to net cash provided by operating activities			
Depreciation of property, plant and equipment	267,691	256,069	246,158
Other amortization	43,106	38,772	32,544
Provision for credit losses	10,357	2,037	(25,825)
Loans originated, held for sale	(51,872)	(128,195)	(340,986)
Proceeds from sale of loans, held for sale	49,162	136,504	364,848
Loss (gains) on sale of investment securities, net and equity-method investment	15,609	(8,123)	(528)
Gain on sale of loans	(910)	(1,692)	(9,305)
Deferred income tax expense (benefit)	5,268	(32,502)	(5,398)
Share-based compensation expense	10,532	10,366	9,135
Allowance for equity funds used during construction	(15,164)	(10,574)	(9,534)
Other	(4,342)	(7,580)	(7,060)
Changes in assets and liabilities			
Increase in accounts receivable and unbilled revenues, net	(75,038)	(151,551)	(73,811)
Decrease (increase) in fuel oil stock	43,388	(87,569)	(45,819)
Increase in materials and supplies	(34,887)	(7,960)	(4,602)
Decrease (increase) in regulatory assets	(10,613)	34,600	(13,874)
Increase in regulatory liabilities	54,470	44,888	15,358
Increase in accounts, interest and dividends payable	60,013	28,169	9,925
Change in prepaid and accrued income taxes, tax credits and utility revenue taxes	(13,247)	121,636	41,331
Decrease in defined benefit pension and other postretirement benefit plans liability	(8,872)	(5,191)	(6,660)
Change in other assets and liabilities, net	5,692	(20,656)	(48,280)
Net cash provided by operating activities	551,471	454,476	375,673
Cash flows from investing activities			
Available-for-sale investment securities purchased	—	(366,177)	(1,464,644)
Principal repayments on available-for-sale investment securities	148,693	342,354	583,238
Proceeds from sale of available-for-sale investment securities	170,481	—	197,354
Purchases of held-to-maturity investment securities	—	—	(349,579)
Proceeds from repayments or maturities of held-to-maturity investment securities	67,360	29,432	53,654
Purchase of stock from Federal Home Loan Bank	(91,200)	(173,768)	(33,022)
Redemption of stock from Federal Home Loan Bank	103,032	157,208	31,702
Net decrease (increase) in loans held for investment	(285,493)	(661,492)	72,489
Proceeds from sale of commercial loans	94,665	—	—
Proceeds from sale of residential loans	—	—	59,844
Purchase of loans held for investment	(26,195)	(102,504)	—
Proceeds from sale of real estate held for sale	595	3,806	—
Capital expenditures	(448,296)	(344,037)	(314,524)
Contributions to low income housing investments	(1,360)	(844)	(16,131)
Acquisition of business	—	(25,706)	—
Other, net	10,319	13,046	27
Net cash used in investing activities	(257,399)	(1,128,682)	(1,179,592)

(continued)

Consolidated Statements of Cash Flows (continued)

Hawaiian Electric Industries, Inc. and Subsidiaries

Years ended December 31	2023	2022	2021
Cash flows from financing activities			
Net increase (decrease) in deposit liabilities	(122,228)	(2,516)	785,255
Net increase (decrease) in short-term borrowings with original maturities of three months or less	(137,650)	83,652	(10,493)
Proceeds from issuance of short-term debt	65,000	35,000	—
Repayment of short-term debt	(100,000)	—	(65,000)
Net increase (decrease) in other bank borrowings with original maturities of three months or less	(596,810)	606,815	(1,365)
Proceeds from issuance of other bank borrowings	1,000,000	—	—
Repayment of other bank borrowings	(250,000)	—	—
Proceeds from issuance of long-term debt	625,000	227,312	285,886
Repayment of long-term debt	(167,080)	(221,910)	(82,262)
Withheld shares for employee taxes on vested share-based compensation	(2,371)	(3,165)	(2,006)
Net proceeds from issuance of common stock	1,223	—	—
Common stock dividends	(112,957)	(153,229)	(148,643)
Preferred stock dividends of subsidiaries	(1,890)	(1,890)	(1,890)
Other	(4,662)	(2,398)	(3,080)
Net cash provided by financing activities	195,575	567,671	756,402
Net increase (decrease) in cash, cash equivalents and restricted cash	489,647	(106,535)	(47,517)
Cash, cash equivalents and restricted cash, January 1	204,927	311,462	358,979
Cash, cash equivalents and restricted cash, December 31	694,574	204,927	311,462
Less: Restricted cash	(15,028)	(5,050)	(5,911)
Cash and cash equivalents, December 31	$ 679,546	$ 199,877	$ 305,551

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Income

Hawaiian Electric Company, Inc. and Subsidiaries

Years ended December 31	**2023**	**2022**	**2021**
(in thousands)			
Revenues	$ 3,269,521	$ 3,408,587	$ 2,539,636
Expenses			
Fuel oil	1,211,420	1,265,614	644,349
Purchased power	671,769	793,584	670,494
Other operation and maintenance	533,557	497,601	475,412
Depreciation	243,705	235,424	229,469
Taxes, other than income taxes	306,912	317,173	240,354
Total expenses	2,967,363	3,109,396	2,260,078
Operating income	302,158	299,191	279,558
Allowance for equity funds used during construction	15,164	10,574	9,534
Retirement defined benefits credit—other than service costs	4,303	3,835	3,890
Interest expense and other charges, net	(86,140)	(76,416)	(72,447)
Allowance for borrowed funds used during construction	5,201	3,416	3,250
Interest income	6,454	—	—
Income before income taxes	247,140	240,600	223,785
Income taxes	51,193	49,676	44,148
Net income	195,947	190,924	179,637
Preferred stock dividends of subsidiaries	915	915	915
Net income attributable to Hawaiian Electric	195,032	190,009	178,722
Preferred stock dividends of Hawaiian Electric	1,080	1,080	1,080
Net income for common stock	$ 193,952	$ 188,929	$ 177,642

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Comprehensive Income

Hawaiian Electric Company, Inc. and Subsidiaries

Years ended December 31	**2023**	**2022**	**2021**
(in thousands)			
Net income for common stock	$ 193,952	$ 188,929	$ 177,642
Other comprehensive income (loss), net of taxes:			
Retirement benefit plans:			
Net gains arising during the period, net of taxes of $3,529, $64,925 and $52,554 for 2023, 2022 and 2021, respectively	10,175	187,193	151,523
Adjustment for amortization of prior service credit and net losses (gains) recognized during the period in net periodic benefit cost, net of taxes of $(688), $6,550 and $6,750 for 2023, 2022 and 2021, respectively	(1,983)	18,884	19,461
Reclassification adjustment for impact of D&Os of the PUC included in regulatory assets, net of taxes of $(2,846), $(69,345), and $(59,429) for 2023, 2022 and 2021, respectively	(8,204)	(199,936)	(171,345)
Other comprehensive income (loss), net of taxes	(12)	6,141	(361)
Comprehensive income attributable to Hawaiian Electric Company, Inc.	$ 193,940	$ 195,070	$ 177,281

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Balance Sheets

Hawaiian Electric Company, Inc. and Subsidiaries

December 31	2023	2022
(in thousands)		
Assets		
Property, plant and equipment		
Utility property, plant and equipment		
Land	$ 52,098	$ 52,060
Plant and equipment	8,232,810	7,979,510
Right-of-use assets - finance lease	342,174	48,371
Less accumulated depreciation	(3,197,514)	(3,086,499)
Construction in progress	320,223	275,353
Utility property, plant and equipment, net	5,749,791	5,268,795
Nonutility property, plant and equipment, less accumulated depreciation of $40 and $63 as of December 31, 2023 and 2022, respectively	6,942	6,945
Total property, plant and equipment, net	5,756,733	5,275,740
Current assets		
Cash and cash equivalents	106,077	39,242
Restricted cash	2,000	—
Customer accounts receivable, net	244,309	288,338
Accrued unbilled revenues, net	185,644	183,280
Other accounts receivable, net	111,519	13,567
Fuel oil stock, at average cost	148,237	191,530
Materials and supplies, at average cost	114,433	79,568
Prepayments and other	58,491	33,482
Regulatory assets	68,453	52,273
Total current assets	1,039,163	881,280
Other long-term assets		
Operating lease right-of-use-assets	71,877	89,318
Regulatory assets	226,351	190,240
Other	189,430	160,889
Total other long-term assets	487,658	440,447
Total assets	$ 7,283,554	$ 6,597,467

(Continued)

Consolidated Balance Sheets (continued)

Hawaiian Electric Company, Inc. and Subsidiaries

December 31	2023	2022
(in thousands)		
Capitalization and liabilities		
Capitalization *(see Consolidated Statements of Capitalization)*		
Common stock equity	$ 2,409,110	$ 2,344,170
Cumulative preferred stock – not subject to mandatory redemption	34,293	34,293
Commitments and contingencies (Note 4)		
Long-term debt, net	1,934,277	1,584,854
Total capitalization	4,377,680	3,963,317
Current liabilities		
Current portion of operating lease liabilities	16,617	19,095
Current portion of long-term debt, net	—	99,962
Short-term borrowings from non-affiliate	—	87,967
Accounts payable	191,040	202,492
Interest and preferred dividends payable	22,882	17,176
Taxes accrued, including revenue taxes	291,942	289,902
Regulatory liabilities	36,559	31,475
Other	171,436	85,596
Total current liabilities	730,476	833,665
Deferred credits and other liabilities		
Operating lease liabilities	62,098	78,715
Finance lease liabilities	330,978	46,048
Deferred income taxes	399,001	384,430
Regulatory liabilities	1,114,131	1,024,175
Unamortized tax credits	84,312	95,300
Defined benefit pension and other postretirement benefit plans liability	60,671	49,748
Other	124,207	122,069
Total deferred credits and other liabilities	2,175,398	1,800,485
Total capitalization and liabilities	$ 7,283,554	$ 6,597,467

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Capitalization

Hawaiian Electric Company, Inc. and Subsidiaries

December 31	2023	2022
(dollars in thousands, except par value)		
Common stock equity		
Common stock of $6 2/3 par value		
Authorized: 50,000,000 shares. Outstanding: 17,854,278 shares		
at December 31, 2023 and 2022	$ 119,048	$ 119,048
Premium on capital stock	810,955	810,955
Retained earnings	1,476,258	1,411,306
Accumulated other comprehensive income, net of taxes-retirement benefit plans	2,849	2,861
Common stock equity	2,409,110	2,344,170

Cumulative preferred stock not subject to mandatory redemption

Authorized: 5,000,000 shares of $20 par value and 7,000,000 shares of $100 par value.

Series	Par Value		Shares outstanding December 31, 2023 and 2022	2023	2022
(dollars in thousands, except par value and shares outstanding)					
C-4.25%	$ 20	(Hawaiian Electric)	150,000	$ 3,000	$ 3,000
D-5.00%	20	(Hawaiian Electric)	50,000	1,000	1,000
E-5.00%	20	(Hawaiian Electric)	150,000	3,000	3,000
H-5.25%	20	(Hawaiian Electric)	250,000	5,000	5,000
I-5.00%	20	(Hawaiian Electric)	89,657	1,793	1,793
J-4.75%	20	(Hawaiian Electric)	250,000	5,000	5,000
K-4.65%	20	(Hawaiian Electric)	175,000	3,500	3,500
G-7.625%	100	(Hawaii Electric Light)	70,000	7,000	7,000
H-7.625%	100	(Maui Electric)	50,000	5,000	5,000
			1,234,657	34,293	34,293

(continued)

Consolidated Statements of Capitalization (continued)

Hawaiian Electric Company, Inc. and Subsidiaries

December 31	2023	2022
(in thousands)		
Long-term debt		
Obligations to the State of Hawaii for the repayment of Special Purpose Revenue Bonds (subsidiary obligations unconditionally guaranteed by Hawaiian Electric):		
3.50%, Series 2019, due 2049	$ 80,000	$ 80,000
3.20%, Refunding series 2019, due 2039	150,000	150,000
3.10%, Refunding series 2017A, due 2026	125,000	125,000
4.00%, Refunding series 2017B, due 2037	140,000	140,000
3.25%, Refunding series 2015, due 2025	47,000	47,000
Total obligations to the State of Hawaii	$ 542,000	$ 542,000
Other long-term debt – unsecured:		
Taxable senior notes:		
6.11%, Series 2023A, due 2030	40,000	—
6.25%, Series 2023A and 2023B, due 2033	90,000	—
6.70%, Series 2023C, due 2053	20,000	—
3.70%, Series 2022A, due 2032	60,000	60,000
3.51%, Series 2020C and 2020E, due 2050	70,000	70,000
3.28%, Series 2020B and 2020D, due 2040	45,000	45,000
3.96%, Series 2020A, 2020B and 2020C, due 2050	50,000	50,000
3.31%, Series 2020A and 2020B, due 2030	110,000	110,000
4.21%, Series 2019A, due 2034	50,000	50,000
4.38%, Series 2018A, due 2028	67,500	67,500
4.53%, Series 2018B, due 2033	17,500	17,500
4.72%, Series 2018C, due 2048	15,000	15,000
4.31%, Series 2017A, due 2047	50,000	50,000
4.54%, Series 2016A, due 2046	40,000	40,000
5.23%, Series 2015A, due 2045	80,000	80,000
4.84%, Series 2013A, 2013B and 2013C, due 2027	100,000	100,000
5.65%, Series 2013B and 2013C, due 2043	70,000	70,000
4.55%, Series 2012B and 2012C, due 2023	—	100,000
4.72%, Series 2012D, due 2029	35,000	35,000
5.39%, Series 2012E, due 2042	150,000	150,000
4.53%, Series 2012F, due 2032	40,000	40,000
Total taxable senior notes	1,200,000	1,150,000
Revolving credit facility SOFR +1.80%, due 2026 and 2027	200,000	—
Total other long-term debt – unsecured	1,400,000	1,150,000
Total long-term debt	1,942,000	1,692,000
Less unamortized debt issuance costs	7,723	7,184
Less current portion long-term debt, net of unamortized debt issuance costs	—	99,962
Long-term debt, net	1,934,277	1,584,854
Total capitalization	$ 4,377,680	$ 3,963,317

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Changes in Common Stock Equity

Hawaiian Electric Company, Inc. and Subsidiaries

(in thousands)	Common stock Shares	Common stock Amount	Premium on capital stock	Retained earnings	Accumulated other comprehensive income (loss)	Total
Balance, December 31, 2020	**17,324**	**$ 115,515**	**$ 746,987**	**$ 1,282,335**	**$ (2,919)**	**$ 2,141,918**
Net income for common stock	—	—	—	177,642	—	177,642
Other comprehensive loss, net of taxes	—	—	—	—	(361)	(361)
Issuance of common stock, net of expenses	429	2,861	51,539	—	—	54,400
Common stock dividends	—	—	—	(111,700)	—	(111,700)
Balance, December 31, 2021	**17,753**	**118,376**	**798,526**	**1,348,277**	**(3,280)**	**2,261,899**
Net income for common stock	—	—	—	188,929	—	188,929
Other comprehensive income, net of taxes	—	—	—	—	6,141	6,141
Issuance of common stock, net of expenses	101	672	12,429	—	—	13,101
Common stock dividends	—	—	—	(125,900)	—	(125,900)
Balance, December 31, 2022	**17,854**	**119,048**	**810,955**	**1,411,306**	**2,861**	**2,344,170**
Net income for common stock	—	—	—	193,952	—	193,952
Other comprehensive loss, net of taxes	—	—	—	—	(12)	(12)
Common stock dividends	—	—	—	(129,000)	—	(129,000)
Balance, December 31, 2023	**17,854**	**$ 119,048**	**$ 810,955**	**$ 1,476,258**	**$ 2,849**	**$ 2,409,110**

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Cash Flows

Hawaiian Electric Company, Inc. and Subsidiaries

Years ended December 31	2023	2022	2021
(in thousands)			
Cash flows from operating activities			
Net income	$ 195,947	$ 190,924	$ 179,637
Adjustments to reconcile net income to net cash provided by operating activities			
Depreciation of property, plant and equipment	243,705	235,424	229,469
Other amortization	26,490	25,320	21,737
Deferred income tax expense (benefit)	1,439	(41,415)	(3,829)
State refundable credit	(11,325)	(10,999)	(10,582)
Bad debt expense	8,161	6,027	2,183
Allowance for equity funds used during construction	(15,164)	(10,574)	(9,534)
Bill credits	—	—	2,000
Other	460	(139)	1,350
Changes in assets and liabilities			
Increase in accounts receivable	(65,004)	(91,742)	(50,090)
Increase in accrued unbilled revenues	(3,048)	(54,023)	(27,464)
Decrease (increase) in fuel oil stock	43,293	(87,452)	(45,840)
Increase in materials and supplies	(34,865)	(7,691)	(4,533)
Decrease (increase) in regulatory assets	(10,613)	34,600	(13,874)
Increase in regulatory liabilities	54,470	44,888	15,358
Increase in accounts payable	20,454	22,355	17,671
Change in prepaid and accrued income taxes, tax credits and revenue taxes	1,878	103,198	26,930
Decrease in defined benefit pension and other postretirement benefit plans liability	(8,186)	(4,828)	(5,154)
Change in other assets and liabilities	26,275	(25,943)	(52,302)
Net cash provided by operating activities	474,367	327,930	273,133
Cash flows from investing activities			
Capital expenditures	(438,775)	(329,457)	(292,000)
Other	6,176	5,372	6,035
Net cash used in investing activities	(432,599)	(324,085)	(285,965)
Cash flows from financing activities			
Common stock dividends	(129,000)	(125,900)	(111,700)
Preferred stock dividends of Hawaiian Electric and subsidiaries	(1,995)	(1,995)	(1,995)
Proceeds from issuance of common stock	—	13,101	54,400
Proceeds from issuance of long-term debt	350,000	60,000	115,000
Repayment of long-term debt	(100,000)	(52,000)	—
Net increase (decrease) in short-term borrowings from non-affiliates and affiliate with original maturities of three months or less	(87,967)	87,967	—
Repayment of short-term debt	—	—	(50,000)
Payments of obligations under finance leases	(3,128)	(670)	—
Other	(843)	(364)	(941)
Net cash provided by (used in) financing activities	27,067	(19,861)	4,764
Net increase (decrease) in cash, cash equivalents and restricted cash	68,835	(16,016)	(8,068)
Cash, cash equivalents and restricted cash, January 1	39,242	55,258	63,326
Cash, cash equivalents and restricted cash, December 31	108,077	39,242	55,258
Less: Restricted cash	(2,000)	—	(3,089)
Cash and cash equivalents, December 31	$ 106,077	$ 39,242	$ 52,169

The accompanying notes are an integral part of these consolidated financial statements.

Note 1 · Summary of significant accounting policies

General

Hawaiian Electric Industries, Inc. (HEI) is a holding company with direct and indirect subsidiaries principally engaged in electric utility, banking, and non-regulated renewable/sustainable infrastructure businesses operating in the State of Hawaii. HEI owns Hawaiian Electric Company, Inc. (Hawaiian Electric), ASB Hawaii, Inc. (ASB Hawaii), an intermediate holding company that owns American Savings Bank, F.S.B. (ASB), and Pacific Current, LLC (Pacific Current).

Hawaiian Electric and its wholly owned operating subsidiaries, Hawaii Electric Light Company, Inc. (Hawaii Electric Light) and Maui Electric Company, Limited (Maui Electric), are regulated public electric utilities (collectively, the Utilities) in the business of generating, purchasing, transmitting, distributing and selling electric energy on all major islands in Hawaii other than Kauai. See Note 3.

ASB is a federally chartered, full-service community bank providing a wide range of banking services to individual and business customers through its 35 branches on Oahu (25), Maui (4), Hawaii (3), Kauai (2) and Molokai (1).

Pacific Current's significant subsidiaries include Hamakua Energy, LLC (Hamakua Energy), Mauo, LLC (Mauo) and Ka'ie'ie Waho Company, LLC (Ka'ie'ie Waho) and Mahipapa, LLC (Mahipapa). See Note 3.

Basis of presentation. In preparing the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP), management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities and the reported amounts of revenues and expenses. Actual results could differ significantly from those estimates.

Material estimates that are particularly susceptible to significant change for HEI and its subsidiaries (collectively, the Company) include the amounts reported as fair value for investment securities (ASB only); pension and other postretirement benefit obligations; contingencies and litigation; income taxes; regulatory assets and liabilities (Utilities only); asset retirement obligations (Utilities only); and allowance for credit losses (ASB only).

Consolidation. The HEI consolidated financial statements include the accounts of HEI and its subsidiaries. The Hawaiian Electric consolidated financial statements include the accounts of Hawaiian Electric and its subsidiaries. When HEI or Hawaiian Electric has a controlling financial interest in another entity (usually, majority voting interest), that entity is consolidated. Investments in companies over which the Company or the Utilities have the ability to exercise significant influence, but not control, are accounted for using the equity method. The consolidated financial statements exclude variable interest entities (VIEs) when the Company or the Utilities are not the primary beneficiaries. Significant intercompany amounts are eliminated in consolidation (see Note 3 for limited exceptions).

Cash and cash equivalents. The Utilities consider cash on hand, deposits in banks, money market accounts, certificates of deposit, short-term commercial paper of non-affiliates and liquid investments (with original maturities of three months or less) to be cash and cash equivalents. The Company considers the same items to be cash and cash equivalents as well as ASB's deposits with the Federal Home Loan Bank (FHLB), federal funds sold (excess funds that ASB loans to other banks overnight at the federal funds rate) and securities purchased under resale agreements with original maturities of three months or less.

Restricted cash. The Utilities consider funds on deposit with Wells Fargo, which represent collateral to secure company purchasing cards, to be restricted cash because these funds are available only to finance (or reimburse payment of) approved expenditures. In addition to the Utilities' funds held for collateral, the Company considers cash held by trustees, related to non-recourse loans at Pacific Current subsidiaries, to be restricted cash. At December 31, 2023 and 2022, total restricted cash of the Company was $15.0 million and $5.1 million, respectively, and for the Utilities was $2.0 million and nil, respectively.

Property, plant and equipment. Property, plant and equipment are reported at cost. Self-constructed electric utility plant includes engineering, supervision, administrative and general costs and an allowance for the cost of funds used during the construction period. These costs are recorded in construction in progress and are transferred to utility plant when construction is completed and the facilities are either placed in service or become useful for public utility purposes. Costs for betterments that make utility plant more useful, more efficient, of greater durability or of greater capacity are also capitalized. Upon the retirement or sale of electric utility plant, generally no gain or loss is recognized. The cost of the plant retired is charged to accumulated depreciation. Amounts collected from customers for cost of removal are included in regulatory liabilities. See discussion regarding "Utility projects" in Note 4.

Depreciation. Depreciation is computed primarily using the straight-line method over the estimated lives of the assets being depreciated. Electric utility plant additions in the current year are depreciated beginning January 1 of the following year in accordance with rate-making. Electric utility plant and Pacific Current generation assets have lives ranging from 16 to 51 years for production plant, from 10 to 79 years for transmission and distribution plant, and from 5 to 50 years for general plant. The Utilities' composite annual depreciation rate, which includes a component for cost of removal, was 3.2% in 2023, 2022 and 2021.

Retirement benefits. Pension and other postretirement benefit costs are charged primarily to expense and electric utility plant (in the case of the Utilities). Funding for the Company's qualified pension plans (Plans) is based on actuarial assumptions adopted by the Pension Investment Committee administering the Plans. The participating employers contribute amounts to pension trusts for the Plans in accordance with the funding requirements of the Employee Retirement Income Security Act of 1974, as amended (ERISA), including changes promulgated by the Pension Protection Act of 2006, and considering the deductibility of contributions under the Internal Revenue Code. The Company generally funds at least the net periodic pension cost during the year, subject to ERISA minimum and Internal Revenue Code limits and targeted funded status.

Certain health care and/or life insurance benefits are provided to eligible retired employees and the employees' beneficiaries and covered dependents. The Company generally funds the net periodic postretirement benefit costs other than pensions (except for executive life) for postretirement benefits other than pensions (OPEB), while maximizing the use of the most tax-advantaged funding vehicles, subject to cash flow requirements and reviews of the funded status with the consulting actuary.

Environmental expenditures. The Company and the Utilities are subject to numerous federal and state environmental statutes and regulations. In general, environmental contamination treatment costs are charged to expense. Environmental costs are capitalized if the costs extend the life, increase the capacity, or improve the safety or efficiency of property; the costs mitigate or prevent future environmental contamination; or the costs are incurred in preparing the property for sale. Environmental costs are either capitalized or charged to expense when environmental assessments and/or remedial efforts are probable and the cost can be reasonably estimated. The Utilities review their sites and measure the liability quarterly by assessing a range of reasonably likely costs of each identified site using currently available information, including existing technology, presently enacted laws and regulations, experience gained at similar sites, and the probable level of involvement and financial condition of other potentially responsible parties.

Contingencies and litigation. The Company and the Utilities are subject to proceedings (including PUC proceedings), lawsuits and other claims. Management assesses the likelihood of any adverse judgments in or outcomes of these matters as well as potential ranges of probable losses. A determination of the amount of reserves required, if any, for these contingencies is based on an analysis of each individual case or proceeding often with the assistance of outside counsel. Loss contingencies are reviewed quarterly and estimates are adjusted to reflect the impact of all known information, such as new developments in each matter or changes in approach in dealing with these matters, including changes in settlement strategy. When a loss is probable and reasonably estimable, a liability is recorded in the amount of the estimable loss. If it is reasonably possible that a loss may have been incurred and the effect on the financial statements could be material, the Company and the Utilities disclose the nature of the loss contingency and an estimate of the possible loss or range of loss or a statement that such an estimate cannot be made within the notes to the financial statements.

Income taxes. Deferred income tax assets and liabilities are established for the temporary differences between the financial reporting bases and the tax bases of the Company's and the Utilities' assets and liabilities at federal and state tax rates expected to be in effect when such deferred tax assets or liabilities are realized or settled. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Valuation allowances are established when necessary to reduce deferred income tax assets to the amount expected to be realized.

HEI and the Utilities' investment tax credits are deferred and amortized over the estimated useful lives of the properties to which the credits relate (and for the Utilities, this treatment is in accordance with Accounting Standards Codification (ASC) Topic 980, "Regulated Operations").

The Utilities are included in the consolidated income tax returns of HEI. However, income tax expense has been computed for financial statement purposes as if each utility filed a separate income tax return and Hawaiian Electric filed a consolidated Hawaiian Electric income tax return.

Governmental tax authorities could challenge a tax return position taken by the Company. The Company and the Utilities use a "more-likely-than-not" recognition threshold and measurement standard for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return.

Fair value measurements. Fair value estimates are estimates of the price that would be received to sell an asset, or paid upon the transfer of a liability, in an orderly transaction between market participants at the measurement date. The fair value estimates are generally determined based on assumptions that market participants would use in pricing the asset or liability and are based on market data obtained from independent sources. However, in certain cases, the Company and the Utilities use their own assumptions about market participant assumptions based on the best information available in the circumstances. These valuations are estimates at a specific point in time, based on relevant market information, information about the financial instrument and judgments regarding future expected loss experience, economic conditions, risk characteristics of various financial instruments and other factors. These estimates do not reflect any premium or discount that could result if the Company or the Utilities were to sell its entire holdings of a particular financial instrument at one time. Because no active trading market exists for a portion of the Company's and the Utilities' financial instruments, fair value estimates cannot be determined with precision. Changes in the underlying assumptions used, including discount rates and estimates of future cash flows, could significantly affect the estimates. In addition, the tax ramifications related to the realization of the unrealized gains and losses could have a significant effect on fair value estimates, but have not been considered in making such estimates.

The Company and the Utilities group their financial assets measured at fair value in three levels outlined as follows:

Level 1: Inputs to the valuation methodology are quoted prices, unadjusted, for identical assets or liabilities in active markets. A quoted price in an active market provides the most reliable evidence of fair value and is used to measure fair value whenever available.

Level 2: Inputs to the valuation methodology include quoted prices for similar assets or liabilities in active markets; inputs to the valuation methodology include quoted prices for identical or similar assets or liabilities in markets that are not active; or inputs to the valuation methodology that are derived principally from or can be corroborated by observable market data by correlation or other means.

Level 3: Inputs to the valuation methodology are unobservable and significant to the fair value measurement. Level 3 assets and liabilities include financial instruments whose value is determined using discounted cash flow methodologies, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

Classification in the hierarchy is based upon the lowest level input that is significant to the fair value measurement of the asset or liability. For instruments classified in Level 1 and 2 where inputs are primarily based upon observable market data, there is less judgment applied in arriving at the fair value. For instruments classified in Level 3, management judgment is more significant due to the lack of observable market data.

The Company reviews and updates the fair value hierarchy classifications on a quarterly basis. Changes from one quarter to the next related to the observability of inputs in fair value measurements may result in a reclassification between the fair value hierarchy levels and are recognized based on period-end balances.

Fair value is also used on a nonrecurring basis to evaluate certain assets for impairment or for disclosure purposes. Examples of nonrecurring uses of fair value include mortgage servicing rights accounted for by the amortization method, loan impairments for certain loans, real estate acquired in settlement of loans, goodwill and asset retirement obligations (AROs).

Earnings per share (HEI only). Basic earnings per share (EPS) is computed by dividing net income for common stock by the weighted-average number of common shares outstanding for the period. Diluted EPS is computed similarly, except that dilutive common shares for stock compensation is added to the denominator. As of December 31, 2023, the antidilutive effect of restricted stock units (RSUs) on 65,078 shares of common stock, was not included in the computation of diluted EPS. There were no shares of antidilutive securities outstanding during the years ended December 31, 2022 and 2021.

Impairment of long-lived assets and long-lived assets to be disposed of. The Company and the Utilities review long-lived assets and certain identifiable intangibles for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. When the Utilities conclude that recovery of the remaining carrying amount of long-lived generation asset upon retirement is probable of recovery in future rates the carrying amount of the long-lived generation asset is recorded as a regulatory asset. Other assets to be disposed of are reported at the lower of the carrying amount or fair value, less costs to sell.

Recent accounting pronouncements.

Credit Losses. In March 2022, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2022-02, "Financial Instruments-Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures," which eliminates the accounting guidance for Troubled Debt Restructurings (TDRs) by creditors in Subtopic 310-40, Receivables-Troubled Debt Restructurings by Creditors, while enhancing disclosure requirements for certain loan refinancings and restructurings by creditors when a borrower is experiencing financial difficulty. Specifically, rather than applying the recognition and measurement guidance for TDRs, an entity must apply the loan refinancing and restructuring guidance in paragraphs 310-20-35-9 through 35-11 to determine whether a modification results in a new loan or a continuation of an existing loan. The amendments in this update also require that an entity disclose current-period gross write-offs by year of origination for financing receivables and net investments in leases within the scope of Subtopic 326-20, "Financial Instruments-Credit Losses-Measured at Amortized Cost." Gross write-off information must be included in the vintage disclosures required for public business entities in accordance with paragraph 325-20-50-6, which requires that an entity disclose the amortized cost basis of financing receivables by credit-quality indicator and class of financing receivable by year of origination. The amendments in this update are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. ASB updated the accounting for certain loan refinancings and restructurings, and included the required disclosures in the Notes herein in accordance with ASU No. 2022-02.

Segment Reporting. In November 2023, the FASB issued ASU No. 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures to improve reportable segment disclosure requirements, primarily through enhanced disclosure requirements of significant segment expenses. These amendments are effective for annual periods beginning after December 15, 2023 and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. These amendments apply on a retrospective basis. The Company is currently evaluating the impact of this amendment on the Company's consolidated financial statements.

Income Taxes. In December 2023, the FASB issued ASU No. 2023-09, Income Taxes (Topic 740): Improvement to Income Tax Disclosures to enhance the transparency and decision usefulness of income tax disclosures. The amendments are effective for annual periods beginning after December 15, 2024. These amendments apply on a prospective basis with a retrospective option. Early adoption is permitted. The Company is currently evaluating the impact of this amendment on the Company's consolidated financial statements.

Electric utility

Regulation by the Public Utilities Commission of the State of Hawaii (PUC). The Utilities are regulated by the PUC and account for the effects of regulation under FASB ASC Topic 980, "Regulated Operations." As a result, the Utilities' financial statements reflect assets, liabilities, revenues and expenses based on current cost-based rate-making regulations (see Note 4—"Regulatory assets and liabilities"). Their continued accounting under ASC Topic 980 generally requires that rates are established by an independent, third-party regulator; rates are designed to recover the costs of providing service; and it is reasonable to assume that rates can be charged to, and collected from, customers. Management believes that the operations of the Utilities, including the impact of the approved PBR Framework, currently satisfy the criteria under ASC Topic 980.

The rate schedules of the Utilities include energy costs recovery clauses (ECRCs) under which electric rates are adjusted for changes in the weighted-average price paid for fuel oil and certain components of purchased power, and the relative amounts of company-generated power and purchased power. The rate schedules also include purchased power adjustment clauses (PPACs) under which the remaining purchase power expenses are recovered through surcharge mechanisms. The amounts collected through the ECRCs and PPACs are required to be reconciled quarterly.

Accounts receivable. Accounts receivable are recorded at the invoiced amount. The Utilities generally assess a late payment charge on balances unpaid from the previous month. The allowance for doubtful accounts is the Utilities' best estimate of the amount of expected credit losses in the Utilities' existing accounts receivable. At December 31, 2023 and 2022, the allowance for customer accounts receivable, accrued unbilled revenues and other accounts receivable was $4.6 million and $6.1 million, respectively.

Electric utility revenues. Revenues related to electric service are generally recorded when service is rendered and include revenues applicable to energy consumed in the accounting period but not yet billed to the customers. The Utilities also record revenue under a decoupling mechanism. See "Decoupling" discussion in Note 4.

Repairs and maintenance costs. Repairs and maintenance costs for overhauls of generating units are generally expensed as they are incurred.

Allowance for funds used during construction (AFUDC). AFUDC represents the estimated costs of debt (i.e., interest) and equity funds used to finance plant construction. AFUDC is credited on the statement of income and charged to construction in progress on the balance sheet. If a project under construction is delayed for an extended period of time, AFUDC on the delayed project may be stopped after assessing the causes of the delay and probability of recovery. The tax gross up of the allowance for equity funds used during construction is credited to income taxes on the statement of income and charged to a regulatory asset. This gross up, net of amortization of the regulatory asset, is reflected in income tax expense.

The weighted-average AFUDC rate was 7.2% in 2023, 7.1% in 2022 and 2021, and reflected quarterly compounding.

Asset retirement obligations. AROs are accounted for in accordance with ASC 410-20, *"*Asset Retirement Obligations." AROs are recognized at present value of expected costs to retire long-lived assets from service, provided a legal obligation exists and a reasonable estimate of the fair value and the settlement date can be made. In the subsequent period, the liability is accreted to its future value while the asset retirement cost is depreciated over the estimated useful life of the underlying asset. The Utilities' recognition of AROs have no impact on earnings, as the cost of the AROs are recovered over the life of the asset through depreciation. AROs recognized by the Utilities relate to legal obligations with the retirement of plant and equipment, including removal of asbestos and other hazardous materials. See "Asset retirement obligations" in Note 4.

Bank (HEI only)

Investment securities. Investments in debt securities are classified as held-to-maturity (HTM), trading or available-for-sale (AFS). ASB determines the appropriate classification at the time of purchase. Debt securities that ASB intends to and has the ability to hold to maturity are classified as HTM securities and reported at amortized cost. Marketable debt securities that are bought and held principally for the purpose of selling them in the near term are classified as trading securities and reported at fair value, with unrealized gains and losses included in earnings. Marketable debt securities not classified as either HTM or trading securities are classified as AFS and reported at fair value. Unrealized gains and losses for AFS securities are excluded from earnings and reported on a net basis in accumulated other comprehensive income (AOCI) until realized. Transfers of debt securities from the available-for-sale classification to the held-to-maturity classification are made at fair value at the date of transfer. The unrealized holding gain or loss at the date of transfer remains in AOCI and in the carrying value of the held-to-maturity investment security. Unrealized holding gains or losses that remain in AOCI are amortized or accreted over the expected life of the security as an adjustment of yield, offsetting the related amortization of the premium or accretion of the discount.

Interest income is recorded on an accrual basis. Discounts and premiums on securities are accreted or amortized into interest income using the interest method over the remaining contractual lives of the agency obligation securities and the estimated lives of the mortgage-backed securities adjusted for anticipated prepayments. ASB uses actual prepayment experience and estimates of future prepayments to determine the constant effective yield necessary to apply the interest method of income recognition. The discounts and premiums on the agency obligations portfolio are accreted or amortized on a prospective basis using expected contractual cash flows. The discounts and premiums on the mortgage-backed securities portfolio are accreted or amortized on a retrospective basis using changes in anticipated prepayments. This method requires a retrospective adjustment of the effective yield each time ASB changes the estimated life as if the new estimate had been known since the original acquisition date of the securities. Estimates of future prepayments are based on the underlying collateral characteristics and historic or projected prepayment behavior of each security. The specific identification method is used in determining realized gains and losses on the sales of securities.

AFS debt securities with unrealized losses are reviewed quarterly. ASB will first assess whether it intends to sell, or it is more likely than not that it will be required to sell the security before recovery of its amortized cost basis. If either criteria is met, the security's amortized cost basis is written down to fair value through income. For AFS securities that do not meet the aforementioned criteria, ASB evaluates whether the decline in fair value is the result of a credit loss or other factors. The determination of whether or not a credit loss exists is based on consideration of the cash flows expected to be collected from the debt security. ASB develops these expectations after considering various factors such as agency ratings, the financial condition of the issuer, payment history, payment structure of the security, industry and market conditions, underlying collateral and other factors which may be relevant based on the facts and circumstances pertaining to individual securities. If this assessment indicates that a credit loss exists, the present value of cash flows expected to be collected from the security are compared to the amortized cost basis of the security. If the present value of cash flows expected to be collected is less than the amortized cost basis, a credit loss exists and an allowance for credit losses is recorded for the credit loss, limited by the amount that the fair value is less than the amortized cost basis. Any impairment that has not been recorded through an allowance for credit losses is recognized in other comprehensive income. Changes in the allowance for credit losses are recorded as a provision for (or reversal of) credit losses. Losses are charged against the allowance when management believes the uncollectibility of an AFS security is confirmed or when either of the criteria regarding intent or requirement to sell is met. As of December 31, 2023, 2022 and 2021, there was no indicated impairment as ASB expects to collect the contractual cash flows for these investments.

Held-to-maturity debt securities are assessed periodically to determine if a valuation allowance is necessary to absorb credit losses expected to occur over the remaining contractual life of the securities. The carrying amount of held-to-maturity debt securities is presented net of the valuation allowance for credit losses when such an allowance is deemed necessary.

Stock in FHLB is carried at cost and is reviewed at least quarterly for impairment, with valuation adjustments recognized in noninterest income.

Loans. ASB carries loans at amortized cost less the allowance for credit losses, loan origination fees (net of direct loan origination costs), commitment fees and purchase premiums and discounts. Interest on loans is credited to income as it is earned. Discounts and premiums are accreted or amortized over the life of the loans using the interest method.

Loan origination fees (net of direct loan origination costs) are deferred and recognized as an adjustment in yield over periods not exceeding the contractual life of the loan using the interest method or taken into income when the loan is paid off or sold. Nonrefundable commitment fees (net of direct loan origination costs, if applicable) received for commitments to originate or purchase loans are deferred and, if the commitment is exercised, recognized as an adjustment of yield over the life of the loan using the interest method. Nonrefundable commitment fees received for which the commitment expires unexercised are recognized as income upon expiration of the commitment.

Loans held for sale are stated at the lower of cost or estimated fair value on an aggregate basis. Premiums, discounts and net deferred loan fees are not amortized while a loan is classified as held for sale. A sale is recognized only when the consideration received is other than beneficial interests in the assets sold and control over the assets is transferred irrevocably to the buyer. Gains or losses on sales of loans are recognized at the time of sale and are determined by the difference between the net sales proceeds and the allocated basis of the loans sold.

Allowance for credit losses. The allowance for credit losses (ACL) represents management’s estimate of expected credit losses over the expected contractual life of the related loans as of the balance sheet date. Contractual terms are adjusted for expected prepayments but are not extended for expected extensions, renewals or modifications except in circumstances where ASB reasonably expects to execute a troubled debt restructuring with the borrower or where certain extension or renewal options are embedded in the original contract and not unconditionally cancellable by the Bank.

Accrued interest receivables on loans are presented in the Consolidated Financial Statements as a component of other assets. When accrued interest is deemed to be uncollectible (typically when a loan is placed on nonaccrual status), interest income is reversed against interest income on loans. ASB follows established policies for placing loans on nonaccrual status, so uncollectible accrued interest receivable is reversed in a timely manner. As a result, the Bank has elected not to measure an allowance for credit losses for accrued interest receivables.

Credit losses are charged and recoveries are credited to the ACL. The ACL is maintained at a level the Bank considers to be adequate and is based on ongoing assessments and evaluations of the collectability of loans. The Bank’s expected credit loss models consider historical credit loss experience, current market and economic conditions, and forecasted changes in market and economic conditions if such forecasts are considered reasonable and supportable. Generally, the Bank considers its forecasts to be reasonable and supportable for a period of up to a year from the estimation date. For periods beyond the reasonable and supportable forecast period, expected credit losses are estimated by reverting to historical loss information without adjustment for changes in economic conditions. The Bank evaluates the length of its reasonable and supportable forecast period, its reversion period and reversion methodology at least annually, or more often if warranted by economic conditions or other circumstances.

The Bank’s methodology for determining the ACL includes an estimate of expected credit losses on a collective basis for groups of loans with similar risk characteristics and specific allowances for loans which are individually evaluated.

ASB disaggregates its portfolio loans into portfolio segments for purposes of determining the allowance for credit losses. Commercial, commercial real estate, and commercial construction loans are defined as non-homogeneous loans and ASB utilizes a risk rating system for evaluating the credit quality of the loans. Non-homogeneous loans are also categorized into the regulatory asset quality classifications—Pass, Special Mention, Substandard, Doubtful, and Loss based on credit quality. ASB utilizes a numerical-based, risk rating “PD Model” that takes into consideration fiscal year-end financial information of the borrower and identified financial attributes including retained earnings, operating cash flows, interest coverage, liquidity and leverage that demonstrate a strong correlation with default to assign default probabilities at the borrower level. In addition, a loss given default (LGD) value is assigned to each loan to measure loss in the event of default based on loan specific features such as collateral that mitigates the amount of loss in the event of default.

Residential, consumer and credit scored business loans are considered homogeneous loans, which are typically underwritten based on common, uniform standards. For the homogeneous portfolio, the quality of the loan is best indicated by the repayment performance of an individual borrower. ASB supplements performance data with external credit bureau data and credit scores such as the Fair Isaac Corporation (FICO) score on a quarterly basis. ASB has built portfolio loss models for each major segment based on the combination of internal and external data to predict the probability of default at the loan level.

The Bank also considers qualitative factors in determining the ACL. Qualitative factors are used to capture characteristics in the portfolio that impact expected credit losses but that are not fully captured within the Bank's expected credit loss models. These include but are not limited to adjustments for changes in policies or procedures in underwriting, monitoring or collections, economic conditions, portfolio mix, lending and risk management personnel, results of internal audit and quality control reviews, collateral values and any concentrations of credit.

The reserve for unfunded commitments is maintained at a level believed by management to cover expected losses related to unfunded credit facilities and is included in accounts payable and other liabilities in the consolidated balance sheets. The determination of the adequacy of the reserve is based upon an evaluation of the unfunded credit facilities, including an assessment of historical commitment utilization experience, credit risk grading and historical loss rates. This process takes into consideration the same risk elements that are analyzed in the determination of the adequacy of the allowance for credit losses, as discussed above. Net adjustments to the reserve for unfunded commitments are included in the provision for credit losses in the consolidated statements of income.

The allowance for credit losses is based on currently available information and historical experience, and future adjustments may be required from time to time to the allowance for credit losses based on new information and changes that occur (e.g., due to changes in economic conditions, particularly in Hawaii). Actual losses could differ from management's estimates, and these differences and subsequent adjustments could be material.

Nonperforming loans. Loans are generally placed on nonaccrual status when contractually past due 90 days or more, or earlier if the probability of collection is insufficient to warrant further accrual. All interest that is accrued but not collected is reversed. A loan may be returned to accrual status if (i) principal and interest payments have been brought current and repayment of the remaining contractual principal and interest is expected to be made, (ii) the loan has otherwise become well-secured and in the process of collection, or (iii) the borrower has been making regularly scheduled payments in full for the prior six months and it is reasonably assured that the loan will be brought fully current within a reasonable period. Cash receipts on nonaccruing loans are generally applied to reduce the unpaid principal balance.

Loans considered to be uncollectible are charged-off against the allowance for credit losses. The amount and timing of charge-offs on loans includes consideration of the loan type, length of delinquency, insufficiency of collateral value, lien priority and the overall financial condition of the borrower. Recoveries on loans previously charged-off are credited back to the allowance for credit losses. Loans that have been charged-off against the allowance for credit losses are periodically monitored to evaluate whether further adjustments to the allowance are necessary.

Loans in the commercial and commercial real estate portfolio are charged-off when the loan is risk rated "Doubtful" or "Loss." The loan or a portion thereof is determined to be uncollectible after considering the borrower's overall financial condition and collateral deficiency. A commercial or commercial real estate loan is considered uncollectible when: (a) the borrower is delinquent in principal or interest 90 days or more; (b) significant improvement in the borrower's repayment capacity is doubtful; and/or (c) collateral value is insufficient to cover outstanding indebtedness and no other viable assets or repayment sources exist.

Loans in the residential mortgage and home equity portfolios are charged-off when the loan or a portion thereof is determined to be uncollectible after considering the borrower's overall financial condition and collateral deficiency. Such loan is considered uncollectible when: (a) the borrower is delinquent in principal or interest 180 days or more; (b) it is probable that collateral value is insufficient to cover outstanding indebtedness and no other viable assets or repayment sources exist; (c) notification of the borrower's bankruptcy is received or the borrower's debt is discharged in bankruptcy and the loan is not reaffirmed; or (d) in cases where ASB is in a subordinate position to other debt, the senior lien holder has foreclosed and ASB's junior lien is extinguished.

Other consumer loans are generally charged-off when the balance becomes 120 days delinquent.

Loans modified in a troubled debt restructuring. Prior to January 1, 2023, loans were considered to have been modified in a troubled debt restructuring (TDR) when, due to a borrower's financial difficulties, ASB made concessions to the borrower that it would not otherwise consider for a non-troubled borrower. With the adoption of ASU No. 2022-02, accounting guidance for TDRs by creditors is eliminated. Loan refinancing and restructuring guidance is applied to determine whether a modification results in a new loan or a continuation of an existing loan. Prior to January 1, 2023, TDR modifications may have included interest rate reductions, interest only payments for an extended period of time, protracted terms such as amortization and maturity beyond the customary length of time found in the normal market place, and other actions intended to minimize economic loss and to provide alternatives to foreclosure or repossession of collateral. Generally, a nonaccrual loan that had been modified in a TDR remained on nonaccrual status until the borrower demonstrated sustained repayment performance for a period of six consecutive months. However, performance prior to the modification, or significant events that coincided with the modification, were included in assessing whether the borrower could meet the new terms and may have resulted in the loan being returned to accrual status at the time of loan modification or after a shorter performance period. If the borrower's ability to meet the revised payment schedule was uncertain, or there was reasonable doubt over the full collectability of principal and interest, the loan remained on nonaccrual status.

Real estate acquired in settlement of loans. ASB records real estate acquired in settlement of loans at fair value, less estimated selling expenses. ASB obtains appraisals based on recent comparable sales to assist management in estimating the fair value of real estate acquired in settlement of loans. Subsequent declines in value are charged to expense through a valuation allowance. Costs related to holding real estate are charged to operations as incurred.

Goodwill. Goodwill is initially recorded as the excess of the purchase price over the fair value of the net assets acquired in a business combination and is subsequently evaluated at least annually for impairment during the fourth quarter. At December 31, 2023 and 2022, the amount of goodwill was $82.2 million. The goodwill relates to ASB and is the Company's only intangible asset with an indefinite useful life.

To determine if there was an impairment to the book value of goodwill pertaining to ASB, the fair value of ASB was estimated using a valuation method based on the market and income approaches. The market approach considers publicly traded financial institutions and measures the institutions' market values as a multiple to (1) net income and (2) tangible book equity. The income approach uses a discounted cash flow method to value a company on a going concern basis and is based on the concept that the future benefits derived from a particular company can be measured by its sustainable after-tax cash flows in the future. ASB used its forecasted net income and estimated cost savings if the Bank were acquired and applied a discount rate to calculate its discounted cash flows. A capitalization of earnings method was used to calculate a terminal value for the discounted cash flow method. The income approach was weighted 75% and the publicly traded company valuation method was weighted 25%. More weight was given to the income approach as this approach uses the projected performance of ASB in the stressed environment and would be more indicative of the current fair value of the Bank. For the three years ended December 31, 2023, there has been no impairment of goodwill.

Mortgage banking. Mortgage loans held for sale are stated at the lower of cost or estimated fair value on an aggregate basis. Premiums, discounts and net deferred loan fees are not amortized while a loan is classified as held-for-sale. A sale is recognized only when the consideration received is other than beneficial interests in the assets sold and control over the assets is transferred irrevocably to the buyer. Gains or losses on sales of loans are recognized at the time of sale and are determined by the difference between the net sales proceeds and the allocated basis of the loans sold. ASB is obligated to subsequently repurchase a loan if the purchaser discovers a standard representation or warranty violation such as noncompliance with eligibility requirements, customer fraud or servicing violations. This primarily occurs during a loan file review. ASB considers and records a reserve for loan repurchases if appropriate.

ASB recognizes a mortgage servicing asset when a mortgage loan is sold with servicing rights retained. This mortgage servicing right (MSR) is initially capitalized at its presumed fair value based on market data at the time of sale and accounted for in subsequent periods at the lower of amortized cost or fair value. Mortgage servicing assets or liabilities are included as a component of gain on sale of loans. Under ASC Topic 860, "Transfers and Servicing," ASB amortizes the MSRs in proportion to and over the period of estimated net servicing income and assess for impairment at each reporting date.

ASB's MSRs are stratified based on predominant risk characteristics of the underlying loans including loan type such as fixed-rate 15- and 30-year mortgages and note rate in bands primarily of 50 to 100 basis points. For each stratum, fair value is calculated by discounting expected net income streams using discount rates that reflect industry pricing for similar assets. Expected net income streams are estimated based on industry assumptions regarding prepayment expectations and income and expenses associated with servicing residential mortgage loans for others.

ASB uses a present value cash flow model using techniques described above to estimate the fair value of MSRs. Because observable market prices with exact terms and conditions may not be readily available, ASB compares the fair value of MSRs to an estimated value calculated by an independent third-party on a semi-annual basis. The third-party relies on both published and unpublished sources of market related assumptions and its own experience and expertise to arrive at a value. ASB uses the third-party value only to assess the reasonableness of fair value generated by the valuation model.

Impairment is recognized through a valuation allowance for each stratum when the carrying amount exceeds fair value, with any associated provision recorded as a component of loan servicing fees included in "Revenues - bank" in the consolidated statements of income. A direct write-down is recorded when the recoverability of the valuation allowance is deemed to be unrecoverable.

Loan servicing fee income represents income earned for servicing mortgage loans owned by investors. It includes mortgage servicing fees and other ancillary servicing income, net of guaranty fees. Servicing fees are generally calculated on the outstanding principal balances of the loans serviced and are recorded as income when earned.

Tax credit investments. ASB invests in limited liability entities formed to operate qualifying affordable housing projects.

The affordable housing investments provide tax benefits to investors in the form of tax deductions from operating losses and tax credits. As a limited partner, ASB has no significant influence over the operations. These investments are initially recorded at the initial capital contribution with a liability recognized for the commitment to contribute additional capital over the term of the investment.

ASB uses the proportional amortization method of accounting for its investments. Under the proportional amortization method, ASB amortizes the cost of its investments in proportion to the tax credits and other tax benefits it receives. The amortization, tax credits and tax benefits are reported as a component of income tax expense.

For these limited liability entities, ASB assesses whether it is the primary beneficiary of the limited liability entity, which is a variable interest entity (VIE). The primary beneficiary of a VIE is determined to be the party that meets both of the following criteria: (i) has the power to make decisions that most significantly affect the economic performance of the VIE; and (ii) has the obligation to absorb losses or the right to receive benefits that in either case could potentially be significant to the VIE. Generally, ASB, as a limited partner, is not deemed to be the primary beneficiary as it does not meet the power criterion, i.e., no power to direct the activities of a VIE that most significantly impact the VIE's economic performance and no direct ability to unilaterally remove the general partner.

All tax credit investments are evaluated for potential impairment at least annually, or more frequently, when events or conditions indicate that it is deemed probable that ASB will not recover its investment. If an investment is determined to be impaired, it is written down to its estimated fair value and the new cost basis of the investment is not adjusted for subsequent recoveries in value. As of December 31, 2023, ASB did not have any impairment losses resulting from forfeiture or ineligibility of tax credits or other circumstances related to its low-income housing tax credit (LIHTC) investments.

At December 31, 2023 and 2022, the carrying amount of LIHTC investments was \$112.2 million and \$107.0 million, respectively, and included in other assets in the consolidated balance sheets.

ASB's unfunded commitments to fund its LIHTC investment partnerships were \$87.9 million and \$70.1 million as of December 31, 2023 and 2022, respectively. These unfunded commitments are unconditional and legally binding and are recorded in other liabilities with a corresponding increase in other assets.

The table below summarizes the amounts in income tax expense related to ASB's LIHTC investments:

Years ended December 31	2023	2022	2021
(in millions)			
Amounts in income taxes related to low-income housing tax credit investments			
Amortization recognized in the provision for income taxes	$ (13.5)	$ (12.0)	$ (10.3)
Tax credits and other tax benefits recognized in the provision for income taxes	18.3	16.3	13.9
Net benefit to income tax expense	$ 4.8	$ 4.3	$ 3.6

Note 2 · Maui windstorm and wildfires

On August 8, 2023, a number of brush fires in the West Maui (Lahaina) and Upcountry Maui areas caused widespread property damage, including damage to property of the Utilities, and 101 confirmed fatalities in Lahaina at this time (the Maui windstorm and wildfires). The Maui windstorm and wildfires were fueled by extreme winds and drought-like conditions in those parts of Maui.

The circumstances surrounding the Maui windstorm and wildfires are currently the subject of several investigations.

Restoration costs and recoveries. The Utilities are continuing restoration work to rebuild portions of the electric system in Lahaina to ensure safe and reliable power to all West Maui customers. Ongoing restoration efforts include the rebuilding of transmission and distribution lines along former routes in the Lahaina area with the installation of new interim steel poles and electrical equipment. Currently, crews are also continuing repairs to restore power to less than ten customers in Lahaina. All other properties that can have power restored have been brought back online in West Maui.

On December 27, 2023, the Public Utilities Commission of the State of Hawaii (PUC) issued an order authorizing deferred accounting treatment for the Utilities' incremental non-labor expenses related to the Maui windstorm and wildfires. The deferred accounting treatment applies to certain non-labor expenses incurred from August 8, 2023 through December 31, 2024 that are not already a part of the base rates. The approval pertains only to deferred cost treatment; any cost recovery of deferred costs will be the subject of a separate application(s). As of December 31, 2023, the Utilities have deferred $14.7 million of certain incremental costs related to the Maui windstorm and wildfires to a regulatory asset.

While the Utilities plan to seek recovery of damage to covered electrical infrastructure under their insurance programs, the timing and amount of any insurance recoveries are not determinable at this time and, as such, an insurance receivable has not been recorded as of the date of this filing. The Company's property insurance has a total policy limit of $500 million with a $1 million retention for damages related to Utility-owned non-generating assets, including overhead transmission and distribution assets within 1,000 feet of such assets. The Utilities believe capital expenditures related to restoration that are not covered by insurance will be managed under their current regulatory mechanisms, the recovery of which would be subject to PUC approval.

ASB's Lahaina branch, including most of its contents and automated teller machine, was destroyed in the fire. The Bank leased the property of its Lahaina location.

Third-party claims and other proceedings.

Tort-related legal claims. Multiple civil and class action lawsuits related to the Maui windstorm and wildfires have been filed in the Maui and Oahu Circuit Courts against HEI, the Utilities, and other defendants, including the County of Maui, the State of Hawaii and related state entities, private landowners and developers, and telecommunications companies (collectively "tort-related legal claims"). The majority of these lawsuits have been removed to federal court, but many of the cases are subject to motions to remand them back to the state courts. Most of these lawsuits allege that the defendants were responsible for, and/or negligent in failing to prevent or respond to the wildfires that led to the property destruction and loss of life. Other claims include, among other things, personal injury, wrongful death, emotional distress and inverse condemnation. One lawsuit asserting similar theories and claims was filed by the County of Maui against HEI and the Utilities, and two other lawsuits were filed by approximately 160 subrogation insurers against HEI, the Utilities, a private landowner, and telecommunications companies. Additional lawsuits may be filed against the Company and other defendants in the future. The plaintiffs seek to recover damages and other costs, including punitive damages.

While the investigations into the circumstances surrounding the Maui windstorm and wildfires are ongoing, various unaffiliated third parties have published estimates of the total economic damage generally ranging from $3.8 billion to $6 billion. These estimates have not been validated by the Company, and they represent gross numbers that do not take into account causation or liability nor attempt to allocate responsibility among the various defendants. As such, these estimates are not intended to provide a range of a reasonably possible loss under ASC Topic 450-20, "Loss Contingencies" attributable to the Company arising from the Maui windstorm and wildfires. In addition, on November 6, 2023, the Hawaii Insurance Division of the State of Hawaii Department of Commerce and Consumer Affairs released preliminary data on Maui windstorm and wildfires claims, and the Hawaii Insurance Division has subsequently provided updated data. Through November 30, 2023, the data collected from over 200 insurers indicated estimated total insured losses for residential and personal property of more than $1.6 billion. The estimated total losses represent insured claims related to personal motor vehicles and residential property (i.e., homeowners insurance, dwelling-fire landlord, condominium unit owner, renters insurance, and other residential property) and do not account for uninsured or underinsured property losses, commercial property losses, interest, attorneys' fees, fire suppression and clean-up costs, evacuation costs, personal injury or wrongful death damages, medical expenses or other costs, such as potential punitive damages, fines or penalties. It is uncertain whether the insured claims reported to the Hawaii

Insurance Division are complete, and together with property damage claims unaccounted for, as mentioned above, the total amount of property damage claims could be materially higher than the amount reported by the Hawaii Insurance Division. The Hawaii Insurance Division did not state whether it intends to provide updated information in the future.

The Company is actively working with the State of Hawaii and others in the community on solutions for Maui's recovery, including the compensation of those who suffered losses in the Maui windstorm and wildfires and who are currently named as plaintiffs in the various cases. On November 8, 2023, Hawaii Governor Josh Green announced the One ʻOhana Initiative (the Initiative) as a collective path forward to recovery from the Maui windstorm and wildfires. The Initiative is a new humanitarian aid fund of $175 million, with the objective to compensate, in an expedited manner, those who have lost loved ones and those who have suffered severe injuries in the Maui windstorm and wildfires. The Initiative provides an alternative to a lengthy and expensive legal process. Beneficiaries who have lost loved ones are anticipated to receive payments of $1.5 million per decedent, and those who suffered severe injuries are expected to share in a specially allocated pool of compensation. In exchange for receiving such a payment, beneficiaries will be required to waive their ability to pursue legal claims for wrongful death and severe injuries. Hawaiian Electric fully supports this humanitarian initiative and has pledged to contribute $75 million. The Governor announced that other parties, including the State of Hawaii, the County of Maui, and Kamehameha Schools have all agreed to contribute to the fund. Hawaiian Electric's contribution to the Initiative will be less than half of the total, and Hawaiian Electric's insurance carriers have agreed to fund its share of the contributions to the fund. Hawaiian Electric's contribution is reflective of its commitment to join with community partners to provide solutions to promote Maui's recovery. Hawaiian Electric's commitment to contribute to the Initiative is not an admission of guilt or reflection of fault or liability related to the wildfires.

In connection with its commitment to contribute to the Initiative, the Utilities accrued, as of December 31, 2023, $75 million, and concurrently, recorded an insurance reimbursement receivable of an equivalent amount as the recovery of the Utilities' contribution to the Initiative under its excess liability insurance policy is deemed probable. The Initiative contemplates additional phases, including a process to potentially resolve remaining tort-related legal claims, as well as seeking legislation to reduce wildfire risk and provide financial support to help ensure a strong energy future for all of Hawaii. While the Utilities plan to participate in a process with the State and community partners to explore solutions to support Maui's recovery and compensate victims for damages, as noted above, the Utilities are unable to reasonably estimate any additional potential loss, or range of loss. The Company believes it is reasonably possible that a loss will be incurred in excess of the expected $75 million contribution to the Initiative and is unable to predict the ultimate outcome or reasonably estimate a range of possible loss from these actions at this time.

The Company intends to vigorously defend against the litigation if necessary. There is no assurance that the Company will be successful in the defense of the litigation or that insurance will be available or adequate to fund any potential settlements, judgments, or costs associated with the litigation or contributions to any potential additional phases of the Initiative. If additional liabilities were to be incurred, the loss could be material to the Company's results of operations, financial positions and cash flows. If any such losses were to be sufficiently high, the Company may not have liquidity or the ability to access liquidity at levels necessary to satisfy such losses.

Securities class action and shareholder lawsuits. On August 24, 2023, a putative securities class action captioned Bhangal v. Hawaiian Electric Industries, Inc., et al., No.: 3:23-cv-04332-JSC was filed in the United States District Court for the Northern District of California. The lawsuit alleges violations of the Securities Exchange Act of 1934 (the "Exchange Act") and Rule 10b-5 promulgated thereunder against HEI and certain of its current and former officers, and Section 20(a) of the Exchange Act against certain of HEI's current and former officers. Plaintiff broadly alleges that HEI and certain of its current and former officers made materially false and misleading statements or omissions regarding HEI's wildfire prevention and safety protocols and related matters. Plaintiff seeks unspecified monetary damages. On December 7, 2023, the court appointed Daniel Warren as lead plaintiff and Pomerantz LLP as lead plaintiff's counsel and on January 9, 2024, the court set March 8, 2024, as lead plaintiff's deadline for filing amended complaint and set a briefing schedule on defendants' anticipated motion to dismiss. The Company intends to vigorously defend against this action. There is no assurance that the Company will be successful in the defense of the litigation or that insurance will be available or adequate to fund any potential settlement or judgment or the litigation costs of the action. The Company does not believe that a loss is probable and any potential loss or range of loss is not reasonably estimable.

On September 11, 2023, a putative shareholder derivative action captioned Rice v. Connors, et al., No. 1CCV-23-0001181 was filed in the Circuit Court of the First Circuit, State of Hawaiʻi. On December 6, 2023, the case was removed to the United States District Court for the District of Hawaii and captioned Rice v. Connors, et al., No. 1:23-cv-00577-JAO-BMK. This action is purportedly brought by a shareholder on behalf of nominal defendants HEI and Hawaiian Electric against certain current and former officers and directors of HEI and Hawaiian Electric. Plaintiff asserts Hawaiʻi state law breach of fiduciary duty, abuse of control, corporate waste and unjust enrichment claims allegedly arising in connection with the Maui windstorm and wildfires that occurred in August 2023 and certain of HEI's prior public disclosures. Plaintiff seeks, on behalf of HEI and

Hawaiian Electric, compensatory and punitive damages, restitution and equitable relief in the form of changes to HEI's corporate governance, policies and culture. Pursuant to a schedule agreed upon by the parties and ordered by the court, defendants are not required to respond to plaintiff's amended complaint until after the pending motions to remand in the tort litigation are resolved. While the Company has obligations to indemnify and/or advance the defendants' legal fees and costs in connection with this lawsuit, any monetary recovery in the derivative litigation should accrue to the Company. The Company is unable to predict the ultimate outcome and is unable to make a reasonable estimate of the amount or range of loss, if any, that could result from any unfavorable outcome.

On December 26, 2023, another putative shareholder derivative action captioned Kallaus v. Johns, et al., No. 3:23-cv-06627 was filed in the United States District Court for the Northern District of California. This action is purportedly brought by a shareholder on behalf of nominal defendants HEI and Hawaiian Electric against certain current and former officers and directors of HEI and Hawaiian Electric. Plaintiff purports to assert both Hawai‘i state law and federal securities law claims. Plaintiff brings state law breach of fiduciary duty, corporate waste, and unjust enrichment claims purportedly arising in connection with the Maui windstorm and wildfires that occurred in August 2023 and certain public disclosures. Plaintiff also asserts claims for contribution under Sections 10(b) and 21D of the Exchange Act against certain of HEI's current and former directors and officers, and claims for violation of Section 14(a) of the Exchange Act against certain of HEI's current and former directors. Plaintiff generally alleges that HEI and certain of its current and former officers made materially false and misleading statements or omissions regarding HEI's wildfire prevention and safety protocols and related matters. Plaintiff also broadly claims HEI proxy statements were materially false and misleading for similar reasons. Plaintiff seeks, on behalf of HEI and Hawaiian Electric, unspecified monetary damages and equitable relief in the form of changes to HEI's corporate governance and internal procedures. While the Company has certain obligations to indemnify and/or advance the defendants' legal fees and costs in connection with this lawsuit, any monetary recovery in the derivative litigation should accrue to the Company. The Company is unable to predict the ultimate outcome and is unable to make a reasonable estimate of the amount or range of loss, if any, that could result from any unfavorable outcome.

On January 31, 2024, an additional putative shareholder derivative action captioned Cole v. Johns, et al., No. 3:24-cv-00598 was filed in the United States District Court for the Northern District of California. This action is purportedly brought by a shareholder on behalf of nominal defendants HEI and Hawaiian Electric against certain current and former officers and directors of HEI and Hawaiian Electric. Plaintiff purports to assert both Hawai‘i state law and federal securities law claims. Plaintiff brings state law breach of fiduciary duty, corporate waste, and unjust enrichment claims purportedly arising in connection with the Maui windstorm and wildfires that occurred in August 2023 and certain public disclosures. Plaintiff also asserts claims for contribution under Sections 10(b) and 21D of the Exchange Act against certain of HEI's current and former directors and officers, and claims for violation of Section 14(a) of the Exchange Act against certain of HEI's current and former directors. Plaintiff generally alleges that HEI and certain of its current and former officers made materially false and misleading statements or omissions regarding HEI's wildfire prevention and safety protocols and related matters. Plaintiff also broadly claims HEI proxy statements were materially false and misleading for similar reasons. Plaintiff seeks, on behalf of HEI and Hawaiian Electric, unspecified monetary and punitive damages. While the Company has certain obligations to indemnify and/or advance the defendants' legal fees and costs in connection with this lawsuit, any monetary recovery in the derivative litigation should accrue to the Company. The Company is unable to predict the ultimate outcome and is unable to make a reasonable estimate of the amount or range of loss, if any, that could result from any unfavorable outcome.

Maui windstorm and wildfires costs. Legal costs in connection with the litigation and loss contingencies are expensed as incurred. As of December 31, 2023, the Company incurred and accrued \$34.9 million (\$24.7 million by the Utilities) of legal expenses to address these lawsuits and other legal matters related to the Maui windstorm and wildfires. The Company has \$165 million of excess liability insurance for third party claims, including claims related to wildfires, with a retention of \$0.3 million, and \$145 million directors and officers liability insurance to cover claims related to the shareholder and derivative lawsuits, with a retention of \$1.0 million. As of December 31, 2023, the Company recorded legal-related insurance recoveries for a total of \$29.6 million under the policies, of which, \$26.6 million has been recorded to insurance receivable.

As of December 31, 2023, on a consolidated basis, the Company has incurred \$63.4 million of incremental expenses related to the Maui windstorm and wildfires, which excludes the \$75 million contribution and insurance receivable discussed above.

(in thousands)	Year ended December 31, 2023 Electric utility	HEI Consolidated
Maui windstorm and wildfires related expenses:		
Legal expenses	$ 24,737	$ 34,876
One ‘Ohana Initiative contribution	75,000	75,000
Other expense	15,071	28,507
Total Maui windstorm and wildfires related expenses	114,808	138,383
Insurance recoveries[1]	(98,613)	(104,580)
Deferral treatment approved by the PUC[2]	(14,692)	(14,692)
Total Maui windstorm and wildfires related expenses, net of insurance recoveries and approved deferral treatment	$ 1,503	$ 19,111

[1] Includes insurance receivable of $75 million related to the One ‘Ohana Initiative contribution.

[2] Related to the PUC’s order, received on December 27, 2023, approving deferred accounting treatment for the Utilities’ incremental non-labor expenses related to the August 2023 Maui windstorm and wildfires. Amounts were reclassified to a regulatory asset.

In addition, the Utilities incurred $18.0 million of total capital costs related to the Maui windstorm and wildfires.

Note 3 · Segment financial information

The electric utility and bank segments are strategic business units of the Company that offer different products and services and operate in different regulatory environments. The accounting policies of the segments are the same as those described for the Company in the summary of significant accounting policies, except as otherwise indicated and except that federal and state income taxes for each segment are calculated on a "stand-alone" basis. HEI evaluates segment performance based on net income. Each segment accounts for intersegment sales and transfers as if the sales and transfers were to third parties (i.e., at current market prices). Intersegment revenues consist primarily of Hamakua Energy electricity revenues, interest, rent and preferred stock dividends.

Electric utility

Hawaiian Electric and its wholly owned operating subsidiaries, Hawaii Electric Light and Maui Electric, are public electric utilities in the business of generating, purchasing, transmitting, distributing and selling electric energy on all major islands in Hawaii other than Kauai, and are regulated by the PUC. The utility subsidiaries are aggregated within the electric utility segment because they: (1) are involved in the business of supplying electric energy in the same geographical location (i.e., the State of Hawaii), (2) have similar production processes that comprise electric generation, (3) serve similar customers within their franchise territories (e.g., residential, commercial and industrial customers), (4) use similar electric grids to distribute the energy to their customers, (5) are regulated by the PUC and undergo similar rate-making processes, (6) have similar economic characteristics and (7) perform financial reporting oversight and management of the business at the consolidated level.

Bank

ASB is a federally chartered savings bank that provides a full range of banking services to individual and business customers through its branch system in Hawaii. ASB is subject to examination and comprehensive regulation by the Office of the Comptroller of the Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC), and is subject to reserve requirements established by the Board of Governors of the Federal Reserve System.

Other

"Other" includes amounts for the holding companies (HEI and ASB Hawaii), Pacific Current and its subsidiaries, and intercompany eliminations.

Pacific Current. Pacific Current was formed in 2017 to focus on investing in non-regulated renewable energy and sustainable infrastructure in the State of Hawaii to help achieve the state's sustainability goals. Significant investments of Pacific Current made through its subsidiaries, Hamakua Energy, Mauo, Ka'ie'ie Waho, and Mahipapa include:

Hamakua power plant. In 2017, Hamakua Energy acquired Hamakua Energy Partners, L.P.'s 60-MW combined cycle power plant and other assets from affiliates of ArcLight Capital Partners, a private equity firm. The plant sells all the power it produces to Hawaii Electric Light under an existing power purchase agreement (PPA) that expires in 2030.

Solar-plus-storage power purchase agreement. In 2018, Mauo executed definitive agreements to acquire a solar-plus-storage PPA for a multi-site, commercial-scale project that provides 8.1 MW of solar capacity and 42.6 megawatt-hours (MWh) of storage capacity on the islands of Maui and Oahu. The PPA has a 15-year term with a customer option to extend for an additional five years.

6-MW photovoltaic system. In 2020, Ka'ie'ie Waho acquired a 6-MW photovoltaic system situated on 20 acres of land on the island of Kauai. Kauai Island Utility Cooperative purchases all of the power generated by the system under a PPA that expires in 2033.

7.5-MW renewable, firm dispatchable closed-loop biomass-to-energy facility. In July 2022, Mahipapa acquired a 7.5-MW renewable, firm dispatchable closed-loop biomass-to-energy facility on Kauai. Kauai Island Utility Cooperative purchases all of the power generated by the system under a PPA that expires in 2035.

Segment financial information was as follows:

(in thousands)	Electric utility	Bank	Other	Total
2023				
Revenues	3,269,521	394,663	17,982	3,682,166
Depreciation and amortization	270,195	28,491	12,111	310,797
Interest income	6,454	—	2,651	9,105
Interest expense, net	86,140	82,797	39,392	208,329
Income (loss) before income taxes	247,140	63,401	(64,840)	245,701
Income taxes (benefit)	51,193	10,039	(16,659)	44,573
Net income (loss)	195,947	53,362	(48,181)	201,128
Preferred stock dividends of subsidiaries	1,995	—	(105)	1,890
Net income (loss) for common stock	193,952	53,362	(48,076)	199,238
Capital expenditures[1]	438,775	5,569	3,952	448,296
Assets (at December 31, 2023)	7,283,554	9,673,192	287,075	17,243,821
2022				
Revenues from external customers	$ 3,408,583	$ 321,068	$ 12,334	$ 3,741,985
Intersegment revenues (eliminations)	4	—	(4)	—
Revenues	3,408,587	321,068	12,330	3,741,985
Depreciation and amortization	260,744	24,436	9,661	294,841
Interest expense, net	76,416	13,301	26,986	116,703
Income (loss) before income taxes	240,600	102,241	(38,646)	304,195
Income taxes (benefit)	49,676	22,252	(10,761)	61,167
Net income (loss)	190,924	79,989	(27,885)	243,028
Preferred stock dividends of subsidiaries	1,995	—	(105)	1,890
Net income (loss) for common stock	188,929	79,989	(27,780)	241,138
Capital expenditures[1]	329,457	4,704	9,876	344,037
Assets (at December 31, 2022)	6,597,467	9,545,970	140,807	16,284,244
2021				
Revenues from external customers	$ 2,539,589	$ 306,398	$ 4,392	$ 2,850,379
Intersegment revenues (eliminations)	47	—	(47)	—
Revenues	2,539,636	306,398	4,345	2,850,379
Depreciation and amortization	251,206	21,124	6,372	278,702
Interest expense, net	72,447	5,040	21,916	99,403
Income (loss) before income taxes	223,785	130,559	(43,481)	310,863
Income taxes (benefit)	44,148	29,325	(10,666)	62,807
Net income (loss)	179,637	101,234	(32,815)	248,056
Preferred stock dividends of subsidiaries	1,995	—	(105)	1,890
Net income (loss) for common stock	177,642	101,234	(32,710)	246,166
Capital expenditures[1]	292,000	11,131	11,393	314,524
Assets (at December 31, 2021)	6,491,625	9,181,603	149,409	15,822,637

[1] Contributions in aid of construction balances are included in capital expenditures.

Intercompany electricity sales of the Utilities to ASB and “other” segments are not eliminated because those segments would need to purchase electricity from another source if it were not provided by the Utilities and the profit on such sales is nominal.

Hamakua Energy’s sales to Hawaii Electric Light (a regulated affiliate) are eliminated in consolidation.

Note 4 · Electric utility segment

Regulatory assets and liabilities. The Utilities record regulatory assets and liabilities when they are deemed probable of recovery from or refund to customers. Determining probability requires significant judgment by management and includes considerations of regulatory orders, proposed regulatory treatment, strength of the applications and other available evidence. Regulatory assets represent deferred costs and accrued decoupling revenues which are expected to be recovered through rates over PUC-authorized periods. Generally, the Utilities do not earn a return on their regulatory assets; however, they have been allowed to recover interest on certain regulatory assets and to include certain regulatory assets in rate base. Regulatory liabilities represent amounts included in rates and collected from ratepayers for costs expected to be incurred in the future, or amounts collected in excess of costs incurred that are refundable to customers. For example, the regulatory liability for cost of removal in excess of salvage value represents amounts that have been collected from ratepayers for costs that are expected to be incurred in the future to retire a utility plant. Generally, the Utilities include regulatory liabilities in rate base or are required to apply interest to certain regulatory liabilities. In the table below, noted in parentheses are the original PUC authorized amortization or recovery periods and, if different, the remaining amortization or recovery periods as of December 31, 2023 are noted.

Regulatory assets were as follows:

December 31	2023	2022
(in thousands)		
Retirement benefit plans (balance primarily varies with plans' funded statuses)	$ 70,616	$ 69,919
Income taxes (2-36 years)	81,620	82,583
Decoupling revenue balancing account and RAM (1-2 years)	19,002	14,290
Right-Of-Use (ROU) assets (21 years remaining)	9,067	7,711
Vacation earned, but not yet taken (1 year)	14,585	14,109
COVID-19 related costs (to be determined by PUC)	8,715	11,403
ECRC/PPAC (1 year)	24,691	20,369
Maui windstorm and wildfire related costs (to be determined by PUC)	14,692	—
Retirement of generating units (10 years)	29,930	—
Other (1-36 years remaining)	21,886	22,129
Total regulatory assets	$ 294,804	$ 242,513
Included in:		
Current assets	$ 68,453	$ 52,273
Long-term assets	226,351	190,240
Total regulatory assets	$ 294,804	$ 242,513

Regulatory liabilities were as follows:

December 31	2023	2022
(in thousands)		
Cost of removal in excess of salvage value (1-79 years)	$ 591,298	$ 577,985
Income taxes (2-36 years)	303,225	316,947
Decoupling revenue balancing account and RAM (1-2 years)	5,995	10,426
Retirement benefit plans (balance primarily varies with plans' funded statuses)	171,421	81,950
Solar tax credits (1-18 years)	49,507	50,240
ECRC/PPAC (1 year)	15,169	4,034
Enterprise Resource Planning (ERP) Benefits (2 years)	12,409	10,491
Other (1 year remaining)	1,666	3,577
Total regulatory liabilities	$ 1,150,690	$ 1,055,650
Included in:		
Current liabilities	$ 36,559	$ 31,475
Long-term liabilities	1,114,131	1,024,175
Total regulatory liabilities	$ 1,150,690	$ 1,055,650

The regulatory asset and liability relating to retirement benefit plans was recorded as a result of pension and OPEB tracking mechanisms adopted by the PUC in rate case decisions for the Utilities in 2007 (see Note 11).

Regulatory asset related to retirement of Honolulu generating units 8 and 9. On December 22, 2023, the PUC issued a decision and order approving the Utilities' request to establish a regulatory asset for the remaining net book value of the fossil fuel generating units Honolulu units 8 and 9 assets that retired on December 31, 2023, and amortize the regulatory asset over approximately nine years. The PUC also ruled that the Utilities may seek to include the regulatory asset in rate base and seek to recover the amortization expense and a return on the unamortized balance of the regulatory asset in the next rate case or rate re-setting proceeding. As of December 31, 2023, the Utilities have recorded $29.9 million in regulatory assets for the remaining net book value of Honolulu generating units 8 and 9.

Regulatory assets for Maui windstorm and wildfires related costs. On December 27, 2023, the PUC issued an order authorizing deferred accounting treatment for the Utilities' incremental non-labor expenses under specific cost categories related to the August 2023 Maui windstorm and wildfires. The deferred accounting treatment applies to certain non-labor expenses incurred from August 8, 2023 through December 31, 2024 that are not already a part of base rates. The approval pertains to deferred cost treatment. The requests for cost recovery of deferred costs will be the subject of a separate application at which time the PUC will evaluate whether such costs were prudently incurred and reasonable and determine the extent to which such costs will be eligible for recovery, and the period over which recovery will occur. If the PUC denies recovery of any deferred costs, such costs would be charged to expense in the period that those costs are no longer considered probable of recovery.

As of December 31, 2023, the Utilities have recorded $14.7 million in regulatory assets for the incremental costs incurred related to the Maui windstorm and wildfires event.

Regulatory liabilities for Enterprise Resource Planning/Enterprise Asset Management (ERP/EAM). The ERP/EAM Implementation Project went live in October 2018. Hawaii Electric Light and Hawaiian Electric began to incorporate their portion of the deferred project costs in rate base and started the amortization over a 12-year period in January 2020 and November 2020, respectively. The PUC required a minimum of $246 million ERP/EAM project-related benefit to be delivered to customers over the system's 12-year service life.

In February 2019, the PUC approved a methodology for passing the future cost saving benefits of the new ERP/EAM system to customers developed by the Utilities in collaboration with the Consumer Advocate. The Utilities filed a benefits clarification document on June 10, 2019, reflecting $150 million in future net other operation and maintenance (O&M) expense reductions and cost avoidance, and $96 million in capital cost reductions and tax savings over the 12-year service life. To the extent the reduction in O&M expense relates to amounts reflected in electric rates, the Utilities would reduce future rates for such amounts. In October 2019, the PUC approved the Utilities and the Consumer Advocate's Stipulated Performance Metrics and Tracking Mechanism. As part of the settlement agreement approved in the Hawaiian Electric 2020 test year rate case, the regulatory liability for Hawaiian Electric will be amortized over five years, beginning in November 2020, and the O&M benefits for Hawaiian Electric was considered flowed through to customers. On December 29, 2023, the PUC approved the Utilities' proposal to accelerate flow-through of the ERP benefits savings currently tracked in regulatory liability accounts to Hawaii Electric Light and Maui Electric customers as part of the customer dividend in the ARA, to mitigate the impact of the Utilities' recovery of the COVID-19 related costs on customers. See "Regulatory assets for COVID-19 related costs" section below.

As of December 31, 2023, the Utilities' regulatory liability was $12.4 million ($2.6 million for Hawaiian Electric, $3.9 million for Hawaii Electric Light and $5.9 million for Maui Electric) for the O&M expense savings that are being amortized or to be included in future rates. At the PUC's direction, the Utilities have been filing Annual Enterprise System Benefits (AESB) report on the achieved benefits savings. The most recent AESB report was filed on February 13, 2024 for the period January 1 through December 31, 2023.

Regulatory assets for COVID-19 related costs. On December 29, 2023, the PUC issued a decision and order (December 2023 D&O) approving the Utilities' request to recover the COVID-19 related deferred costs up to $8.8 million evenly over a three-year recovery period from 2024 through 2026. Following the Utilities' motion for clarification or in the alternative partial reconsideration of the December 2023 D&O, on February 27, 2024, the PUC issued an order clarifying the December 2023 D&O and approving, among other things, the Utilities' requests to base the recovery on the recorded balances as of December 31, 2023 and to modify the recovery period to begin June 1, 2024 and end May 31, 2027. As of December 31, 2023, the Utilities have recorded $8.7 million in regulatory assets for deferral of COVID-19 related costs.

Regulatory assets for suspension of disconnections related costs. Based on the circumstances related to the Maui windstorm and wildfires, on August 31, 2023 and subsequently on October 13, 2023, the PUC issued orders directing all regulated utilities located on, or providing utility service on Maui, including the Utilities, among other things, (i) to suspend disconnections of services and associated disconnection fees beginning from August 8, 2023, through the end of the emergency relief period established by the Governor's Emergency Proclamations related to the Maui windstorm and wildfires, which currently continues through March 5, 2024 (Suspension Period); (ii) to suspend any and all rules and provisions of individual utility tariffs that prevent or condition re-connection of disconnected customers during the Suspension Period; (iii) not to charge customers interest on past due payments or impose any late payment fees through the Suspension Period; (iv) to establish regulatory assets to record costs directly related to the suspension of disconnections, and to record receipt of governmental aid and donation-based aid, loans or grants, and/or all other assistance measures, and any cost savings realized; and (v) to file a notice with the PUC regarding any upcoming application or other request pursuant to HRS Sections 269-16.3, -17, -17.5, -18, -19, or -19.5 and/or regarding any significant financial change to the Maui utility, at least 60 days prior to filing such application or other request with the PUC. The orders also discourage the filing of emergency or general rate increases in response to the emergency situation. In future proceedings, the PUC will assess the utility's request for recovery of these regulatory assets including whether it is reasonable and necessary, the appropriate period of recovery for the approved amount of regulatory assets, any amount of carrying costs thereon, any savings directly attributable to suspension of disconnects, and other related matters. As of December 31, 2023, the Utilities have recorded $0.6 million in regulatory assets for the incremental costs incurred due to the suspension of disconnections.

Major customers. The Utilities received 12% ($376 million), 12% ($393 million) and 11% ($267 million) of their operating revenues from the sale of electricity to various federal government agencies in 2023, 2022 and 2021, respectively.

Cumulative preferred stock. The following series of cumulative preferred stock are redeemable only at the option of the respective company at the following prices in the event of voluntary liquidation or redemption:

December 31, 2023	Voluntary liquidation price	Redemption price
Series		
C, D, E, H, J and K (Hawaiian Electric)	$ 20	$ 21
I (Hawaiian Electric)	20	20
G (Hawaii Electric Light)	100	100
H (Maui Electric)	100	100

Hawaiian Electric is obligated to make dividend, redemption and liquidation payments on the preferred stock of each of its subsidiaries if the respective subsidiary is unable to make such payments, but this obligation is subordinated to Hawaiian Electric's obligation to make payments on its own preferred stock.

Related-party transactions. HEI charged the Utilities $5.2 million, $5.6 million and $5.2 million for general management and administrative services in 2023, 2022 and 2021, respectively. The amounts charged by HEI to its subsidiaries for services provided by HEI employees are allocated primarily on the basis of time expended in providing such services.

In 2023, 2022 and 2021, Hamakua Energy (an indirect subsidiary of HEI) sold energy and capacity to Hawaii Electric Light (subsidiary of Hawaiian Electric and indirect subsidiary of HEI) under a power purchase agreement (PPA) in the amount of $71 million, $66 million and $53 million, respectively.

Hawaiian Electric's short-term borrowings from HEI totaled nil at December 31, 2023 and 2022. Borrowings among the Utilities are eliminated in consolidation. Interest charged by HEI to Hawaiian Electric was not material for the years ended December 31, 2023 and 2022.

Unconsolidated variable interest entities.

Power purchase agreements. As of December 31, 2023, the Utilities had four PPAs for firm capacity and other PPAs with independent power producers (IPPs) and Schedule Q providers (i.e., customers with cogeneration and/or power production facilities who buy power from or sell power to the Utilities), none of which are currently required to be consolidated as VIEs.

Pursuant to the current accounting standards for VIEs, the Utilities are deemed to have a variable interest in Kalaeloa Partners, L.P. (Kalaeloa) and Hamakua Energy by reason of the provisions of the PPA that the Utilities have with the two IPPs. However, management has concluded that the Utilities are not the primary beneficiary of Kalaeloa and Hamakua Energy because the Utilities do not have the power to direct the activities that most significantly impact the two IPPs' economic performance nor the obligation to absorb their expected losses, if any, that could potentially be significant to the IPPs. Thus, the Utilities have not consolidated Kalaeloa and Hamakua Energy in its consolidated financial statements. However, Hamakua Energy is an indirect subsidiary of Pacific Current, and is consolidated in HEI's consolidated financial statements.

For the other PPAs with IPPs, the Utilities have concluded that the consolidation of the IPPs was not required because either the Utilities do not have variable interests in the IPPs due to the absence of an obligation in the PPAs for the Utilities to absorb any variability of the IPPs, or the IPP was considered a "governmental organization," and thus excluded from the scope of accounting standards for VIEs. The consolidation of any significant IPP could have a material effect on the consolidated financial statements, including the recognition of a significant amount of assets and liabilities and, if such a consolidated IPP were operating at a loss and had insufficient equity, the potential recognition of such losses. If the Utilities determine they are required to consolidate the financial statements of such an IPP and the consolidation has a material effect, the Utilities would retrospectively apply accounting standards for VIEs to the IPP.

Commitments and contingencies.

Contingencies. The Utilities are subject in the normal course of business to legal, regulatory and environmental proceedings. Excluding the potential liabilities from the Maui windstorm and wildfires, management does not anticipate that the aggregate ultimate liability arising out of these pending or threatened legal proceedings will be material to its financial position. However, the Utilities cannot rule out the possibility that such outcomes could have a material effect on the results of operations or liquidity for a particular reporting period in the future. The Utilities record loss contingencies when the outcome of such proceedings is probable and when the amount of the loss is reasonably estimable. The Utilities also evaluate, on a continuous basis, whether developments in such proceedings could cause these assessments or estimates to change. Assessment regarding future events is required when evaluating whether a loss is probable or reasonably possible, and as to whether such loss or a range of such loss is estimable. Management is often unable to estimate a reasonably possible loss, or a range of loss, particularly in cases in which: (i). the damages sought are indeterminate or the basis for the damages claimed is not clear; (ii) proceedings are in early stages; (iii) discovery is not complete; (iv) the matters involve novel or unsettled legal theories; (v) significant facts are in dispute; (vi) a large number of parties are represented (including circumstances in which it is uncertain how liability, if any, would be shared among multiple defendants); (vii) a lower court or administrative agency's decision or ruling has been appealed; and/or (vii) a wide range of potential outcomes exist. In such cases, there may be considerable uncertainty regarding the timing or ultimate resolution, including any possible loss, fine, penalty, or business impact.

August 2023 Maui windstorm and wildfires. See Note 2 of the Consolidated Financial Statements.

Hu Honua Bioenergy, LLC (Hu Honua). In May 2012, Hawaii Electric Light signed a PPA, which the PUC approved in December 2013, with Hu Honua for 21.5 MW of renewable, dispatchable firm capacity fueled by locally grown biomass from a facility on the island of Hawaii. Under the terms of the PPA, the Hu Honua plant was scheduled to be in service in 2016. However, Hu Honua encountered construction and litigation delays, which resulted in the termination of the original PPA. Following the termination, Hu Honua filed a lawsuit in the U.S. District Court for the District of Hawaii. The parties reached a settlement that was conditioned on the PUC's timely, non-appealable final approval of an amended and restated PPA dated May 9, 2017. On May 23, 2022, following a contested case hearing, the PUC issued a decision and order denying the amended and restated PPA, based on, among other things, findings that: (1) the project will result in significant greenhouse gas (GHG) emissions, (2) Hu Honua's proposed carbon commitment to sequester more GHG emissions than produced by the project are speculative and unsupported, (3) the amended and restated PPA is likely to result in high costs to customers through its relatively high cost of electricity and through potential displacement of other, lower cost, renewable resources, and (4) based on the foregoing, approving the amended and restated PPA is not prudent or in the public interest. On June 2, 2022, Hawaii Electric Light and Hu Honua filed their separate motions for reconsideration, which were denied by the PUC on June 24, 2022. On June 29, 2022, Hu Honua filed its notice of appeal to the Hawaii Supreme Court of the PUC's May 23, 2022 decision and order denying the amended and restated PPA. On March 13, 2023, the Hawaii Supreme Court affirmed the PUC's decision denying the amended and restated PPA between Hu Honua and Hawaii Electric Light and entered its judgment on appeal on April 12, 2023. On June 7, 2023, Hu Honua filed a status report with the U.S. District Court for the District of Hawaii, stating, among other things, that because settlement of the underlying federal lawsuit was contingent on timely, non-appealable, final approval of the amended and restated PPA by the PUC, that the Hawaii Supreme Court's opinion made fulfillment of the condition impossible, and therefore the settlement agreement between the Hawaiian Electric defendants (HEI, Hawaiian Electric, and Hawaii Electric Light) and Hu Honua is null and void and of no further effect. On November 16, 2023, Hu Honua filed its Motion for Leave to Filed Third Amended and Supplemental Complaint and for Permissive Joinder with the U.S. District Court for the District of Hawaii, asking the court to grant it leave to file a Third Amended and Supplemental Complaint, which would amend its claims and add three new proposed defendants. The hearing on this motion took place on February 14, 2024 and a decision has not been made yet.

Molokai New Energy Partners (MNEP). In July 2018, the PUC approved Maui Electric's PPA with MNEP to purchase solar energy from a photovoltaic (PV) plus battery storage project. The 4.88 MW PV and 3 MW Battery Energy Storage System (BESS) project was to deliver no more than 2.64 MW at any time to the Molokai system. On March 25, 2020, MNEP filed a complaint in the United Stated District Court for the District of Hawaii against Maui Electric claiming breach of contract. On June 3, 2020, Maui Electric provided a Notice of Default and Termination of the PPA to MNEP terminating the PPA with an effective date of July 10, 2020. Thereafter, MNEP filed an amended complaint to include claims relating to the termination and Hawaiian Electric filed its answer to the amended complaint on September 11, 2020, disputing the facts presented by MNEP and all claims within the original and amended complaint. Currently, the discovery phase is ongoing.

Environmental regulation. The Utilities are subject to environmental laws and regulations that regulate the operation of existing facilities, the construction and operation of new facilities and the proper cleanup and disposal of hazardous waste and toxic substances.

Hawaiian Electric, Hawaii Electric Light and Maui Electric, like other utilities, periodically encounter petroleum or other chemical releases associated with current or previous operations. The Utilities report and take action on these releases when and as required by applicable law and regulations. The Utilities believe the costs of responding to such releases identified to date will not have a material effect, individually or in the aggregate, on Hawaiian Electric's consolidated results of operations, financial condition or liquidity.

Former Molokai Electric Company generation site. In 1989, Maui Electric acquired Molokai Electric Company. Molokai Electric Company had sold its former generation site (Site) in 1983 but continued to operate at the Site under a lease until 1985 and left the property in 1987. The Environmental Protection Agency (EPA) has since identified environmental impacts in the subsurface soil at the Site. In cooperation with the State of Hawaii Department of Health and EPA, Maui Electric further investigated the Site and the adjacent parcel to determine the extent of impacts of polychlorinated biphenyls (PCBs), residual fuel oils and other subsurface contaminants. Maui Electric has a reserve balance of $2.6 million as of December 31, 2023, representing the probable and reasonably estimable undiscounted cost for remediation of the Site and the adjacent parcel based on presently available information; however, final costs of remediation will depend on the cleanup approach implemented.

Pearl Harbor sediment study. In July 2014, the U.S. Navy notified Hawaiian Electric of the Navy's determination that Hawaiian Electric is a Potentially Responsible Party under CERCLA responsible for the costs of investigation and cleanup of PCB contamination in sediment in the area offshore of the Waiau Power Plant as part of the Pearl Harbor Superfund Site. Hawaiian Electric was also required by the EPA to assess potential sources and extent of PCB contamination onshore at Waiau Power Plant.

As of December 31, 2023, the reserve account balance recorded by Hawaiian Electric to address the PCB contamination was $9.6 million. The reserve balance represents the probable and reasonably estimable undiscounted cost for the onshore and offshore investigation and remediation. The final remediation costs will depend on the actual onshore and offshore cleanup costs.

Kapolei pipeline. James Campbell Company (JCC) through its wholly owned subsidiary, Aina Nui Corporation discovered petroleum contamination in ground water during construction of a project in Kapolei in late 2022 and incurred approximately $0.8 million in remediation costs. JCC made a joint demand for these costs in June 2023 to the two companies, including Hawaiian Electric, that have pipelines in the area of the contamination. This demand was updated on September 1, 2023 to $1.2 million to incorporate additional costs. It has not been determined whether the nature of the contamination is consistent with what was in the Utilities' pipelines or is wholly or partially the responsibility of the other pipeline owner. At this time, the parties are engaging in settlement discussions and the Utilities are unable to determine the ultimate outcome or the amount of any possible loss.

Endangered Species Act. The Utilities received a sixty-day notice from the American Bird Conservancy and Conservation Council for Hawaii in early February. The sixty-day notice is the pre-cursor to a citizen's suit under the Endangered Species Act. The letter alleges that the Utilities are out of compliance with the Act due to alleged impacts on endangered seabirds caused by the Utilities' powerlines and street and facility lights on Maui and Lanai. The Utilities are already in the process of drafting a Habitat Conservation Plan and will be applying for associated state and federal permits. The letter asserts that the scope of the plan should be broader and that additional interim measures are required while the plan and permits are pending. At this time, the Utilities are unable to determine the ultimate outcome or the amount of any potential loss.

Commitments.

Purchase commitments. As of December 31, 2023, the Utilities' estimated future minimum payments pursuant to purchase obligations related to material contracts for the following five years and thereafter are as follows:

	Payments Due					
(in millions)	**2024**	**2025**	**2026**	**2027**	**2028**	**Thereafter**
Firm capacity PPAs	$ 74	$ 74	$ 74	$ 74	$ 70	$ 295
Renewable dispatchable generation plus energy storage and energy storage PPAs	49	49	49	49	49	740
Fuel transportation	7	7	7	2	—	—
Total	$ 130	$ 130	$ 130	$ 125	$ 119	$ 1,035

Firm capacity PPAs. The Utilities are committed to purchase from four firm capacity PPAs for a total of 362.2 megawatts (MW) of firm capacity, which expire at various dates through 2033.

Renewable dispatchable generation plug energy storage and energy storage PPAs. The Utilities also have long-term renewable PPAs with IPPs from the issuances of Stage 1 and 2 request for proposals in 2018 and 2019, respectively. The Utilities have additional annual payments of $40 million when three projects began commercial operations in 2023. As of

December 31, 2023, a total of four projects provides the Utilities capacity of 105 MW, with 985 MWh batteries. The contracts expire at various dates through 2048.

Fuel transportation lease contract. The Utilities entered into an inter-island fuel transportation contract, expiring in 2027.

The PUC has approved PPACs for the Utilities to recover purchased power capacity, operation and maintenance (O&M) and other non-energy costs related to all aforementioned PPAs. In addition, the Utilities are able to recover fuel component of the energy charges for firm capacity PPAs as well as costs associated to fuel transportation through ECRC.

In general, the Utilities base their payments under the PPAs upon available capacity and actual energy supplied and they are generally not required to make payments for capacity if the contracted capacity is not available, and payments are reduced, under certain conditions, if available capacity drops below contracted levels. In general, the payment rates for capacity have been predetermined for the terms of the agreements. The Utilities do not operate, or participate in the operation of, any of the facilities that provide power under the agreements. Title to the facilities does not pass to Hawaiian Electric or its subsidiaries upon expiration of the agreements, and the agreements do not contain bargain purchase options for the facilities.

Purchases from all IPPs were as follows:

Years ended December 31	**2023**	**2022**	**2021**
(in millions)			
Kalaeloa	$ 298	$ 342	$ 204
AES Hawaii[1]	—	82	130
HPOWER	70	73	70
Hamakua Energy	71	66	53
Puna Geothermal Venture	38	48	29
Wind IPPs	125	119	124
Solar IPPs	72	57	50
Other IPPs[2]	(2)	7	10
Total IPPs	$ 672	$ 794	$ 670

[1] The term of the PPA with AES Hawaii expired on September 1, 2022 and the AES Hawaii coal plant ceased operations.
[2] Includes hydro power and other PPAs.

Utility projects. Many public utility projects require PUC approval and various permits from other governmental agencies. Difficulties in obtaining, or the inability to obtain, the necessary approvals or permits or community support can result in significantly increased project costs or even cancellation of projects. In the event a project does not proceed, or if it becomes probable the PUC will disallow cost recovery for all or part of a project, or if PUC-imposed caps on project costs are expected to be exceeded, project costs may need to be written off in amounts that could result in significant reductions in Hawaiian Electric’s consolidated net income.

Waena Switchyard/Synchronous Condenser Project. In October 2020, to support efforts to increase renewable energy generation and reduce fossil fuel consumption by deactivating current generating units, Maui Electric filed a PUC application to construct a switchyard, which includes the extension of two 69 kV transmission lines and the relocation of another 69 kV transmission line; and the conversion of two generating units to synchronous condensers at Kahului Power Plant in central Maui. In November 2021, the PUC approved Maui Electric’s request to commit funds estimated at $38.8 million for the project, and to recover capital expenditures for the project under Exceptional Project Recovery Mechanism (EPRM) not to exceed $38.8 million, which shall be further reduced to reflect the total project cost exclusive of overhead costs not directly attributable to the project. The Waena Switchyard was placed in service on October 25, 2023. The conversion of the two generating units will be performed after the retirement of Kahului Power Plant Units 3 and 4, which is targeted for the end of 2027.

In approving the project, the PUC recognized that the project will facilitate the ability to accommodate increased renewable energy, as contemplated under the EPRM guidelines. As of December 31, 2023, $24.7 million has been incurred for the project.

Waena Battery Energy Storage System Project. In September 2020, Maui Electric filed a PUC application to purchase and install a 40 MW BESS at its Waena Site in Central Maui. In December 2023, the PUC approved Maui Electric’s request to commit funds estimated at $82.1 million, for the purchase and installation of the project, and to recover costs for the project under EPRM. Project costs incurred as of December 31, 2023 amount to $0.6 million.

Climate Adaptation Transmission and Distribution Resilience Program. The Utilities maintains that improving resiliency of the electric grid is an urgent matter and recognizes that climate change is making Hawaii increasingly vulnerable to sever weather events. On January 31, 2024, the PUC approved the Utilities’ request to commit an estimated $189.7 million in funds for the Climate Adaptation Transmission and Distribution Resilience Program, over a project period of five years. The project is to focus on, among other things, strengthening transmission lines and circuits that serve critical loads, enable substation to proactively de-energize before natural disasters and system hardening in wildfire risk areas to prevent ignition and to enable quicker response.

The project costs to be recovered through EPRM is subject to a cap of $95 million and any amount in excess will be subject to the PUC's further review. Additionally, on August 29, 2023, the U.S. Department of Energy notified the Utilities that their application for $95 million in federal funds under the Infrastructure Investment and Jobs Act (IIJA) has been recommended for award, subject to negotiation of the terms of financial assistance.

Asset retirement obligations. Asset retirement obligations (AROs) represent legal obligations associated with the retirement of certain tangible long-lived assets, are measured as the present value of the projected costs for the future retirement of specific assets and are recognized in the period in which the liability is incurred if a reasonable estimate of fair value can be made. The Utilities' recognition of AROs have no impact on their earnings. The cost of the AROs is recovered over the life of the asset through depreciation. AROs recognized by the Utilities relate to legal obligations associated with the retirement of plant and equipment, including removal of asbestos and other hazardous materials.

The Utilities recorded AROs related to: 1) the removal of retired generating units, certain types of transformers and underground storage tanks; 2) the abandonment of fuel pipelines, underground injection and supply wells; and 3) the removal of equipment and restoration of leased land used in connection with Utility-owned renewable and dispatchable generation facilities.

Changes to the ARO liability included in "Other liabilities" on Hawaiian Electric's balance sheet were as follows:

(in thousands)	2023	2022
Balance, January 1	$ 11,548	$ 11,110
Accretion expense	463	442
Liabilities incurred	—	—
Liabilities settled	(2)	(4)
Balance, December 31	$ 12,009	$ 11,548

The Utilities have not recorded AROs for assets that are expected to operate indefinitely or where the Utilities cannot estimate a settlement date (or range of potential settlement dates). As such, ARO liabilities are not recorded for certain asset retirement activities, including various Utilities-owned generating facilities and certain electric transmission, distribution and telecommunications assets resulting from easements over property not owned by the Utilities.

Regulatory proceedings.

Decoupling. Decoupling is a regulatory model that is intended to provide the Utilities with financial stability and facilitate meeting the State of Hawaii's goals to transition to a clean energy economy and achieve an aggressive renewable portfolio standard. Decoupling delinks the utility's revenues from the utility's sales, removing the disincentive to promote energy efficiency and accept more renewable energy. Decoupling continues under the PBR Framework.

Performance-based regulation framework. On December 23, 2020, the PUC issued a decision and order (PBR D&O) establishing the PBR Framework to govern the Utilities. The PBR Framework incorporates an annual revenue adjustment (ARA) and a suite of new regulatory mechanisms in addition to previously established regulatory mechanisms. Under the PBR Framework, the decoupling mechanism (i.e., the Revenue Balancing Account (RBA)) established by the previous regulatory framework will continue. The existing cost recovery mechanisms continued as previously implemented (e.g., the Energy Cost Recovery Clause, Purchased Power Adjustment Clause (PPAC), Demand-Side Management surcharge, Renewable Energy Infrastructure Program, Demand Response Adjustment Clause, Pension and Other Post-Employment Benefits (OPEB) tracking mechanisms). In addition to annual revenues provided by the ARA, the Utilities may seek relief for extraordinary projects or programs through the Exceptional Project Recovery Mechanism (EPRM) (formerly known as the Major Project Interim Recovery adjustment mechanism) and earn financial rewards for exemplary performance as provided through a portfolio of Performance Incentive Mechanisms (PIMs) and Shared Savings Mechanisms (SSMs). The PBR Framework incorporates a variety of additional performance mechanisms, including Scorecards, Reported Metrics, and an expedited Pilot Process. The PBR Framework also contains a number of safeguards, including a symmetric Earnings Sharing Mechanism (ESM) which protects the Utilities and customers from excessive earnings or losses, as measured by the Utilities' achieved rate-making ROACE and a Re-Opener mechanism, under which the PUC will open an examination, at its discretion, to determine if adjustments or modifications to specific PBR mechanisms are appropriate. The PBR Framework became fully effective on June 1, 2021.

On June 17, 2022, the PUC issued a decision and order (June 2022 D&O) establishing additional PIMs under the PBR Framework for the Utilities. The June 2022 D&O approved two new PIMs, a new SSM, and extended the timeframe for an existing PIM. Specifically, the PUC approved (1) a new (penalty-only) generation-caused interruption reliability PIM, (2) a new (penalty/reward) interconnection requirements study PIM, (3) a new (reward-only) Collective Shared Savings Mechanism (CSSM), and (4) a modification and extension of the existing Interim Grid Services PIM (reward-only). On November 23, 2022, the PUC approved the Utilities' proposed tariffs to implement the aforementioned PIMs with an effective date of January 1, 2023.

In addition, the June 2022 D&O instructed the Utilities to prepare and submit: a detailed fossil fuel retirement report (FF Retirement Report) outlining necessary steps to safely and reliably retire certain existing fossil fuel power plants during the first multi-year rate period (MRP); and a functional integration plan (FIP) for distributed energy resources (DER) to increase transparency into the Utilities' plans and progress for utilizing cost-effective grid services from DERs and ensure that the necessary functionalities and requisite technologies are in place to do so. The PUC also instructed the PBR Working Group to continue its ongoing collaborative efforts to consider other potential new incentive mechanisms and to address other issues raised during the proceeding. On March 30, 2023, the PUC held a PBR Working Group coordination meeting to initiate subgroups on the Long-Term Grid Services PIM, modification/evaluation of existing PIMs, and comprehensive PBR Framework review priority topics.

In accordance with the June 2022 D&O, the Utilities filed their FIP on September 30, 2022, Long-Term Grid Services PIM proposal on July 3, 2023, and FF Retirement Report on October 13, 2023.

On October 16, 2023, the Utilities filed a request for limited suspension of the Transmission and Distribution (T&D) System Average Interruption Duration Index (SAIDI) PIM, the T&D System Average Interruption Frequency Index (SAIFI) PIM, and the target heat rate provision of Maui Electric Maui Division's Energy Cost Recovery Clause (ECRC) tariff starting from August 8, 2023. On December 28, 2023, the PUC issued an order granting a temporary suspension of Maui Electric's T&D SAIDI and SAIFI PIMs and Maui Electric Maui Division's target heat rate provision from August 8, 2023 through June 30, 2024, which the tariffs became effective on January 1, 2024.

On November 3, 2023, the Utilities, Ulupono Initiative LLC, and the County of Hawaii filed a stipulation on proposed modifications to the RPS-A, Call Center, AMI Utilization, and interconnection requirements study PIM. On February 8, 2024, the PUC issued a procedural schedule to govern review of the proposals in the stipulation, which provides for a D&O on the stipulation by June 30, 2024.

On December 26, 2023, the PUC issued an order (1) confirming that the Interim Grid Services PIM will sunset on December 31, 2023, (2) extending the Interconnection Approval PIM through December 31, 2024, and (3) determining that it will continue examination of the Long-Term Grid Services PIM into 2024 as part of a broader examination that addresses barriers to the utilization of DERs to meet grid needs.

<u>Revenue adjustment mechanism</u>. Prior to the implementation of the PBR Framework, the revenue adjustment mechanism (RAM) was a major component of the previously established regulatory framework. The RAM was based on the lesser of: a) an inflationary adjustment for certain O&M expenses and return on investment for certain rate base changes, or b) cumulative annual compounded increase in Gross Domestic Product Price Index applied to annualized target revenues (the RAM Cap). Under the PBR Framework, the ARA mechanism replaced the RAM, and became effective on June 1, 2021. RAM revenue adjustments approved by the PUC in 2020 will continue to be included in the RBA provision's target revenue and RBA rate adjustment unless modified with PUC approval.

<u>Annual revenue adjustment mechanism</u>. The PBR Framework established a five-year MRP during which there will be no general rate cases. Target revenues will be adjusted according to an index-driven ARA based on (i) an inflation factor, (ii) a predetermined X-factor to encompass productivity, which is set at zero, (iii) a Z-factor to account for exceptional circumstances not in the Utilities' control and (iv) a customer dividend consisting of a negative adjustment of 0.22% of adjusted revenue requirements compounded annually and a flow through of the "pre-PBR" savings commitment from the management audit recommendations developed in a prior docket at a rate of $6.6 million per year from 2021 to 2025. The implementation of the ARA occurred on June 1, 2021.

<u>Earnings sharing mechanism</u>. The PBR Framework established a symmetrical ESM for achieved rate-making ROACE outside of a 300 basis points deadband above or below the current authorized ROACE of 9.5% for each of the Utilities. There is a 50/50 sharing between customers and Utilities for the achieved rate-making ROACE falling within 150 basis points outside of the deadband in either direction, and a 90/10 sharing for any further difference. A reopening or review of the PBR terms may be triggered if the Utilities credit rating outlook indicates a potential credit downgrade below investment grade status, or if its achieved rate-making ROACE enters the outer most tier of the ESM.

On August 31, 2023, the PUC issued an order temporarily suspending the ESM until further notice. The intent of the order is to address the unintended consequence of customers potentially bearing the costs associated with the Maui windstorm and wildfires through the operation of the ESM without prior PUC review.

Exceptional project recovery mechanism. Prior to the implementation of the PBR Framework, the PUC established the Major Project Interim Recovery (MPIR) adjustment mechanism and MPIR Guidelines. The MPIR mechanism provides the opportunity to recover revenues for net costs of approved eligible projects placed in service between general rate cases. In establishing the PBR Framework, the MPIR Guidelines were terminated and replaced with the EPRM Guidelines. Although the MPIR Guidelines were terminated and replaced by the EPRM Guidelines, the MPIR mechanism will continue within the PBR Framework to provide recovery of project costs previously approved for recovery under the MPIR. The established EPRM Guidelines permit the Utilities to include the full amount of approved costs in the EPRM for recovery in the first year the project goes into service, pro-rated for the portion of the year the project is in service. Deferred and O&M expense projects are also eligible for EPRM recovery under the EPRM Guidelines. EPRM recoverable costs will be limited to the lesser of actual incurred project costs or PUC-approved amounts, net of savings.

As of December 31, 2023, the Utilities annualized MPIR and EPRM revenue amounts totaled $33.1 million, including revenue taxes, for the Schofield Generating Station ($16.5 million), West Loch PV project ($3.3 million), Grid Modernization Strategy (GMS) Phase 1 project ($11.2 million for all three utilities), Waiawa UFLS project ($0.1 million) and Waena Switchyard/Synchronous project ($2.0 million) that included the 2023 return on project amount (based on approved amounts) in rate base, depreciation and incremental O&M expenses. The PUC approved the Utilities' recovery of the annualized 2023 MPIR amounts for the Schofield Generating Station, West Loch PV, GMS Phase 1, and Waiawa UFLS projects effective June 1, 2023 and for the Waena Switchyard project effective January 1, 2024 through the RBA rate adjustment.

As of December 31, 2023, the PUC approved three EPRM applications for projects totaling $123.5 million to the extent the project costs are not included in rates. On January 31, 2024, the PUC approved one EPRM application, subject to a cap of $95 million to the extent the project costs are not included in rates. Currently, the Utilities are seeking EPRM recovery for three projects with total project costs up to $215.9 million, subject to PUC approval.

Pilot process. As part of the PBR Framework, the PUC approved a Pilot Process to foster innovation by establishing an expedited implementation process for pilots that tests new technologies, programs, business models, and other arrangements. Under the Pilot Process, the Utilities submit specific pilot proposals (Pilot Notices) that are within the scope of the approved Workplan to the PUC for their expedited review. The PUC will strive to issue an order addressing a proposed pilot within 45 days of the filing date of a Pilot Notice. If the PUC does not take affirmative action on a Pilot Notice by the end of the 45-day period, the Pilot Notice shall be considered approved as submitted. The PUC may modify the pilot as originally proposed, and the Utilities shall have 15 days to notify the PUC whether the Utilities accept the modification, propose further modification, or withdraw the Pilot Notice. The PUC may also, where necessary, suspend the Pilot Notice for further investigation.

The approved Pilot Process includes a cost recovery process that generally allows the Utilities to defer and recover total annual expenditures of approved pilot projects net of revenues, subject to an annual cap of $10 million, over 12 months beginning June 1 of the year following pilot implementation through the RBA rate adjustment, although the PUC may determine on a case-by-case basis that a particular project's deferred costs should be amortized over a period greater than 12 months.

On February 28, 2023, the Utilities filed their annual Pilot Update report covering pilot projects that were active during 2022, including reporting on pilot projects that were initiated prior to the commencement of the Pilot Process. The Pilot Update reported on approximately $0.4 million of 2022 recorded pilot project costs including revenue taxes for the Utilities. The 2022 recorded pilot project costs were included in the Utilities' proposed adjustments to target revenue in the 2023 spring revenue report filed on March 28, 2023.

On March 22, 2023, the PUC issued an order temporarily suspending the filing of Pilot Notices, pending a stakeholder meeting which was convened on June 15, 2023 to discuss potential improvements to the Pilot Process.

On July 28, 2023, the PUC issued an order providing additional guidance on the Pilot Process, specifying expectations for future Pilot Notices submitted pursuant to the Pilot Process. The order lifted the temporary suspension on submitting Pilot Notices and the Utilities may file Pilot Notices consistent with the approved Workplan.

Performance incentive mechanisms. The PUC has established the following PIMs and SSMs: (1) Service Quality performance incentives, (2) Phase 1 Request for proposal (RFP) PIM for procurement of low-cost renewable energy, (3) Phase 2 RFP PIMs for generation and generation plus storage project, and grid services and standalone storage, (4) PIMs established in the PBR D&O and (5) PIMs and a SSM established in the June 2022 D&O.

- Service Quality performance incentives (ongoing). Service Quality performance incentives are measured on a calendar-year basis. The PIM tariff requires the performance targets, deadbands and the amount of maximum financial incentives used to determine the PIM financial incentive levels for each of the PIMs to remain constant in interim periods, unless otherwise amended by order of the PUC.

- Service Reliability Performance measured by Transmission and Distribution-caused System Average Interruption Duration and Frequency Indexes (penalties only). Target performance is based on each utility's historical 10-year average performance with a deadband of one standard deviation. The maximum penalty for each performance index is 20 basis points applied to the common equity share of each respective utility's approved rate base (or maximum penalties of approximately $6.4 million for calendar year 2023 - for both indices in total for the three utilities). On December 28, 2023, the PUC issued an order granting a temporary suspension of Maui Electric's T&D SAIDI and SAIFI PIMs from August 8, 2023 through June 30, 2024. For the 2023 evaluation period, the Utilities accrued $3.7 million in penalties.
- Call Center Performance measured by the percentage of calls answered within 30 seconds. Target performance is based on the annual average performance for each utility for the most recent eight quarters with a deadband of 3% above and below the target. The maximum penalty or reward is 8 basis points applied to the common equity share of each respective utility's approved rate base (or maximum penalties or rewards of approximately $1.4 million - in total for the three utilities).

- Phase 1 RFP PIM. Procurement of low-cost variable renewable resources through the RFP process in 2018 is measured by comparison of the procurement price to target prices. The first portion of the incentive was earned upon PUC approval of the PPAs. Based on the seven PPAs approved in 2019, the Utilities recognized $1.7 million in 2019 with the remaining award to be recognized in the year following the in-service date of the projects prorated in proportion to the actual amount of energy utilized, which is estimated to occur from 2023 to 2025. Based on the in-service date of one project, for the 2023 evaluation period, the Utilities earned $0.1 million (for Hawaiian Electric) in rewards.
- Phase 2 RFP PIMs. The PUC order issued on October 9, 2019 establishes pricing thresholds, timelines to complete contracting, and other performance criteria for the performance incentive eligibility. The PIMs provide incentives only without penalties. On July 9, 2020, the Utilities filed two Grid Services Purchase Agreements (GSPA) for the Grid Service RFP that potentially qualify for a demand response PIM; however, details of the incentive metrics will be determined by the PUC. On September 15, 2020, the Utilities filed one PPA that qualified for a PIM incentive and on February 16, 2021, the Utilities filed one additional PPA that qualified for a declining PIM incentive. The PUC approved two PPAs in September 2021 and November 2021, and two GSPAs on December 31, 2020. Based on the two approved PPAs, the Utilities recognized $0.1 million in rewards in 2021. In December 2022 and March 2023, these two PPAs were terminated or declared null and void.
- The PUC previously established the following two PIMs in its PBR D&O, which were approved in an order issued on March 23, 2021 and became effective on June 1, 2021. In its June 2022 D&O, the PUC modified and extended the Interim Grid Services PIM through December 31, 2023.
    - Renewable portfolio standard (RPS) - A PIM that provides a financial reward for accelerating the achievement of RPS goals. The Utilities may earn a reward for the amount of system generation above the interpolated statutory RPS goal at $20/MWh in 2021 and 2022, $15/MWh in 2023, and $10/MWh for the remainder of the MRP. Penalties are already prescribed in the RPS as $20/MWh for failing to meet RPS targets in 2030, 2040 and 2045. The evaluation period commenced on January 1, 2021. For the 2023 evaluation period, the Utilities accrued $0.4 million in rewards.
    - Interim Grid Services - A PIM that provides financial rewards on a $/kW basis for the acquisition of eligible grid services. The June 2022 D&O increased the incentive rate for the acquisition of load reduction grid services. During the PIM performance period, newly acquired committed capacity in the Oahu Scheduled Dispatch Program (SDP), the Oahu Fast DR program (up to the 7 MW cap), and the Maui SDP program shall qualify for the incentive. The Utilities can earn a maximum reward of $1.5 million from 2021 through 2023. For the 2023 evaluation period, the Utilities accrued $1.1 million in rewards.
- The PUC also previously established the following three PIMs in its PBR D&O, which were approved by the PUC on May 17, 2021 and became effective on June 1, 2021.
    - Interconnection Approval PIM that provides financial rewards and penalties for interconnection times for DER systems <100 kW in size. The Utilities can earn a total annual maximum reward of $3.0 million or a total annual maximum penalty of $0.9 million. For the 2023 evaluation period, the Utilities accrued $3.0 million in rewards.
    - Low-to-Moderate Income (LMI) Energy Efficiency PIM that provides financial rewards for collaboration between the Utilities and the third-party Public Benefits Fee Administrator to deliver energy savings for low- and moderate-income customers. The Utilities can earn a total annual maximum reward of $2.0 million. The PIM will initially have a duration of three years and be subject to an annual review. The evaluation period is based on Hawaii Energy's program year with the initial evaluation year being the period of July 1, 2021 through June 30,

2022. For the 2022 program year (July 1, 2022 through June 30, 2023), the Utilities did not accrue any rewards pending receipt of verified results.

- Advanced Metering Infrastructure Utilization PIM that provides financial rewards for leveraging grid modernization investments and engaging customers beyond what is already planned in the Phase 1 Grid Modernization program. The Utilities can earn a total annual maximum reward of $2.0 million. The PIM will initially have a duration of three years after which it will be re-evaluated. The evaluation period commenced on January 1, 2021.

- The PUC established the following PIMs and SSM in its June 2022 D&O, which became effective on January 1, 2023.
  - Generation-caused System Average Interruption Duration and Frequency Indexes PIMs to incentivize achievement of generation-based reliability targets, measured by Generation System Average Interruption Duration and Frequency Indexes (penalties only). Target performance is based on each utility's historical 10-year average performance with a deadband of one standard deviation. The maximum penalty for each performance index is 3 basis points applied to the common equity share of each respective utility's approved rate base (or maximum penalties of approximately $1 million - for both indices in total for the three utilities).
  - An interconnection requirements study PIM to incentivize the timely completion of the IRS process for large-scale renewable energy projects (rewards and penalties) measured by the number of months between final model checkout and delivery of IRS results to the developer. Target performance is ten months with an asymmetrical deadband of two-months for penalties and no deadband for rewards. The maximum penalty and reward will depend on the specifics of the upcoming procurement.
  - A CSSM to incentivize cost control over the Utilities' fuel, purchased power, and EPRM/MPIR costs (collectively, non-ARA costs). This is a reward only incentive where the Utilities retain 20% share of savings when non-ARA costs in a performance year are lower than target year non-ARA costs, which are adjusted for changes in fuel prices, inflation, and system generation from a base year (calendar year 2021). The CSSM does not have a potential penalty and does not have a cap for maximum reward.

For the 2023 evaluation period, the Utilities accrued $0.9 million ($1.2 million for Hawaiian Electric, $(0.6) million for Hawaii Electric Light and $0.3 million for Maui Electric) in estimated rewards net of penalties. The net rewards related to 2023 will be reflected in the 2024 PIMs annual report and 2024 spring revenue report filings with the exception of the Phase 1 RFP PIM that was approved in the 2023 fall revenue report.

Annual review cycle. PBR D&O established an annual review cycle for revenue adjustments under the PBR Framework, including the biannual submission of the revenue reports. On December 20, 2023, the PUC approved the Utilities' fall revenue report filed on October 31, 2023, as amended by the November 13, 2023 Addendum filing, with the exception of the proposed recovery of the COVID-19 related deferred costs and the accelerated return of the Enterprise Resource Planning system benefits savings to Hawaii Electric Light and Maui Electric customers. (See discussion under "Regulatory assets and liabilities" above. The filing reflected ARA revenues for 2023 to be collected from January 1 through December 31, 2024, as follows:

(in millions)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Total
2024 ARA revenues	$ 16.6	$ 4.1	$ 4.0	$ 24.7
Management Audit savings commitment	(4.6)	(1.0)	(1.0)	(6.6)
Net 2024 ARA revenues	$ 12.0	$ 3.1	$ 3.0	$ 18.1

Note: Columns may not foot due to rounding.

The net incremental amounts between the 2023 spring and fall revenue reports are shown in the following table. The amounts are to be collected (refunded) from January 1 through December 31, 2024 under the RBA rate tariffs, which were included in the 2023 fall revenue report filing.

(in millions)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Total
Incremental RAM revenues and ARA revenues	$ 16.6	$ 4.1	$ 4.0	$ 24.7
Annual change in accrued RBA balance through September 30, 2023 (and associated revenue taxes)	3.6	(0.3)	0.1	3.4
Incremental Performance Incentive Mechanisms (net)	0.1	—	—	0.1
Incremental MPIR/EPRM Revenue Adjustment	—	—	2.0	2.0
Net incremental amount to be collected under the RBA rate tariffs	$ 20.3	$ 3.8	$ 6.1	$ 30.2

Note: Columns may not foot due to rounding.

Army privatization. On October 30, 2020, the PUC approved Hawaiian Electric's 50-year contract with the U.S. Army to own, operate and maintain the electric distribution system serving the U.S. Army's 12 installations on Oahu, including Schofield Barracks, Wheeler Army Airfield, Tripler Army Medical Center, Fort Shafter, and Army housing areas. On March 1, 2022, Hawaiian Electric acquired the Army's existing distribution system for a purchase price of $14.5 million, and will pay the Army in the form of a monthly credit against the monthly utility services charge over the 50-year term of the contract. The acquisition of additional assets contemplated in the contract, with an estimated value of $4 million, is planned for the fourth quarter of 2024.

Hawaiian Electric took ownership and all responsibilities for operation and maintenance of the system on March 1, 2022 for a 50-year term after a one-year transition period. Under the contract, Hawaiian Electric will make initial capital upgrades over the first six years of the contract and replace aging infrastructure over the 50-year term. In addition to its regular monthly electricity bill, the Army will pay Hawaiian Electric a monthly utility services charge to cover operations and maintenance expenses and provide recovery for capital upgrades, capital replacements, and the existing distribution system based on a rate of return determined by the PUC for regulated utility investments, as well as depreciation expense. The PUC requires Hawaiian Electric to file regular periodic reports on the activities and investments in fulfillment of the contract and will review the major projects planned on behalf of the Army.

Consolidating financial information. Consolidating financial information for Hawaiian Electric and its subsidiaries are presented for the years ended December 31, 2023, 2022 and 2021, and as of December 31, 2023 and 2022.

Hawaiian Electric unconditionally guarantees Hawaii Electric Light's and Maui Electric's obligations (a) to the State of Hawaii for the repayment of principal and interest on Special Purpose Revenue Bonds issued for the benefit of Hawaii Electric Light and Maui Electric and (b) under their respective private placement note agreements and the Hawaii Electric Light notes and Maui Electric notes issued thereunder. Hawaiian Electric is also obligated, after the satisfaction of its obligations on its own preferred stock, to make dividend, redemption and liquidation payments on Hawaii Electric Light's and Maui Electric's preferred stock if the respective subsidiary is unable to make such payments.

Consolidating statement of income

Year ended December 31, 2023

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Consolidating adjustments		Hawaiian Electric Consolidated
Revenues	$ 2,356,478	464,161	448,882	—		$ 3,269,521
Expenses						
Fuel oil	913,801	105,009	192,610	—		1,211,420
Purchased power	486,067	142,837	42,865	—		671,769
Other operation and maintenance	343,462	85,261	104,834	—		533,557
Depreciation	164,150	42,541	37,014	—		243,705
Taxes, other than income taxes	221,664	43,095	42,153	—		306,912
Total expenses	2,129,144	418,743	419,476	—		2,967,363
Operating income	227,334	45,418	29,406	—		302,158
Allowance for equity funds used during construction	11,721	1,411	2,032	—		15,164
Equity in earnings of subsidiaries	44,809	—	—	(44,809)	[2]	—
Retirement defined benefits credit (expense)—other than service costs	3,735	667	(99)	—		4,303
Interest expense and other charges, net	(62,362)	(11,650)	(12,933)	805	[1]	(86,140)
Allowance for borrowed funds used during construction	4,081	451	669	—		5,201
Interest Income	5,113	1,071	1,075	(805)	[1]	6,454
Income before income taxes	234,431	37,368	20,150	(44,809)		247,140
Income taxes	39,399	8,327	3,467	—		51,193
Net income	195,032	29,041	16,683	(44,809)		195,947
Preferred stock dividends of subsidiaries	—	534	381	—		915
Net income attributable to Hawaiian Electric	195,032	28,507	16,302	(44,809)		195,032
Preferred stock dividends of Hawaiian Electric	1,080	—	—	—		1,080
Net income for common stock	$ 193,952	28,507	16,302	(44,809)		$ 193,952

Consolidating statement of comprehensive income

Year ended December 31, 2023

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Consolidating adjustments		Hawaiian Electric Consolidated
Net income for common stock	$ 193,952	28,507	16,302	(44,809)		$ 193,952
Other comprehensive loss, net of taxes:						
Retirement benefit plans:						
Net gains arising during the period, net of taxes	10,175	961	1,275	(2,236)	[1]	10,175
Adjustment for amortization of prior service credit and net gains recognized during the period in net periodic benefit cost, net of taxes	(1,983)	(221)	(266)	487	[1]	(1,983)
Reclassification adjustment for impact of D&Os of the PUC included in regulatory assets, net of taxes	(8,204)	(752)	(978)	1,730	[1]	(8,204)
Other comprehensive income (loss), net of taxes	(12)	(12)	31	(19)		(12)
Comprehensive income attributable to common shareholder	$ 193,940	28,495	16,333	(44,828)		$ 193,940

Consolidating statement of income

Year ended December 31, 2022

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Consolidating adjustments		Hawaiian Electric Consolidated
Revenues	$ 2,452,969	485,590	470,355	(327)	[1]	$ 3,408,587
Expenses						
Fuel oil	917,801	133,238	214,575	—		1,265,614
Purchased power	601,235	143,636	48,713	—		793,584
Other operation and maintenance	326,785	85,110	85,706	—		497,601
Depreciation	158,725	41,404	35,295	—		235,424
Taxes, other than income taxes	228,843	44,685	43,645	—		317,173
Total expenses	2,233,389	448,073	427,934	—		3,109,396
Operating income	219,580	37,517	42,421	(327)		299,191
Allowance for equity funds used during construction	8,464	898	1,212	—		10,574
Equity in earnings of subsidiaries	47,493	—	—	(47,493)	[2]	—
Retirement defined benefits credit (expense)—other than service costs	3,296	666	(127)	—		3,835
Interest expense and other charges, net	(55,260)	(10,659)	(10,824)	327	[1]	(76,416)
Allowance for borrowed funds used during construction	2,769	277	370	—		3,416
Income before income taxes	226,342	28,699	33,052	(47,493)		240,600
Income taxes	36,333	6,349	6,994	—		49,676
Net income	190,009	22,350	26,058	(47,493)		190,924
Preferred stock dividends of subsidiaries	—	534	381	—		915
Net income attributable to Hawaiian Electric	190,009	21,816	25,677	(47,493)		190,009
Preferred stock dividends of Hawaiian Electric	1,080	—	—	—		1,080
Net income for common stock	$ 188,929	21,816	25,677	(47,493)		$ 188,929

Consolidating statement of comprehensive income

Year ended December 31, 2022

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Consolidating adjustments		Hawaiian Electric Consolidated
Net income for common stock	$ 188,929	21,816	25,677	(47,493)		$ 188,929
Other comprehensive income, net of taxes:						
Retirement benefit plans:						
Net gains arising during the period, net of taxes	187,193	44,411	44,386	(88,797)	[1]	187,193
Adjustment for amortization of prior service credit and net losses recognized during the period in net periodic benefit cost, net of taxes	18,884	2,811	2,584	(5,395)	[1]	18,884
Reclassification adjustment for impact of D&Os of the PUC included in regulatory assets, net of taxes	(199,936)	(46,841)	(46,694)	93,535	[1]	(199,936)
Other comprehensive income, net of taxes	6,141	381	276	(657)		6,141
Comprehensive income attributable to common shareholder	$ 195,070	22,197	25,953	(48,150)		$ 195,070

Consolidating statement of income
Year ended December 31, 2021

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Consolidating adjustments		Hawaiian Electric Consolidated
Revenues	$ 1,793,372	381,033	365,256	(25)	[1]	$ 2,539,636
Expenses						
Fuel oil	442,818	80,086	121,445	—		644,349
Purchased power	508,642	108,997	52,855	—		670,494
Other operation and maintenance	313,009	79,390	83,013	—		475,412
Depreciation	155,607	40,201	33,661	—		229,469
Taxes, other than income taxes	170,604	35,499	34,251	—		240,354
Total expenses	1,590,680	344,173	325,225	—		2,260,078
Operating income	202,692	36,860	40,031	(25)		279,558
Allowance for equity funds used during construction	7,734	586	1,214	—		9,534
Equity in earnings of subsidiaries	45,353	—	—	(45,353)	[2]	—
Retirement defined benefits credit (expense)—other than service costs	3,348	670	(128)	—		3,890
Interest expense and other charges, net	(51,680)	(10,353)	(10,439)	25	[1]	(72,447)
Allowance for borrowed funds used during construction	2,617	197	436	—		3,250
Income before income taxes	210,064	27,960	31,114	(45,353)		223,785
Income taxes	31,342	6,246	6,560	—		44,148
Net income	178,722	21,714	24,554	(45,353)		179,637
Preferred stock dividends of subsidiaries	—	534	381	—		915
Net income attributable to Hawaiian Electric	178,722	21,180	24,173	(45,353)		178,722
Preferred stock dividends of Hawaiian Electric	1,080	—	—	—		1,080
Net income for common stock	$ 177,642	21,180	24,173	(45,353)		$ 177,642

Consolidating statement of comprehensive income
Year ended December 31, 2021

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Consolidating adjustments		Hawaiian Electric Consolidated
Net income for common stock	$ 177,642	21,180	24,173	(45,353)		$ 177,642
Other comprehensive income (loss), net of taxes:						
Retirement benefit plans:						
Net gains arising during the period, net of taxes	151,523	17,902	16,572	(34,474)	[1]	151,523
Adjustment for amortization of prior service credit and net losses recognized during the period in net periodic benefit cost, net of taxes	19,461	2,749	2,553	(5,302)	[1]	19,461
Reclassification adjustment for impact of D&Os of the PUC included in regulatory assets, net of taxes	(171,345)	(20,585)	(18,898)	39,483	[1]	(171,345)
Other comprehensive income (loss), net of tax benefits	(361)	66	227	(293)		(361)
Comprehensive income attributable to common shareholder	$ 177,281	21,246	24,400	(45,646)		$ 177,281

Consolidating balance sheet
December 31, 2023

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiary	Consolidating adjustments	Hawaiian Electric Consolidated
Assets						
Property, plant and equipment						
Utility property, plant and equipment						
Land	$ 42,859	5,645	3,594	—	—	$ 52,098
Plant and equipment	5,398,281	1,459,639	1,374,890	—	—	8,232,810
Finance lease right-of-use assets	306,099	36,075	—	—	—	342,174
Less accumulated depreciation	(1,925,660)	(666,581)	(605,273)	—	—	(3,197,514)
Construction in progress	247,836	33,488	38,899	—	—	320,223
Utility property, plant and equipment, net	4,069,415	868,266	812,110	—	—	5,749,791
Nonutility property, plant and equipment, less accumulated depreciation	5,295	115	1,532	—	—	6,942
Total property, plant and equipment, net	4,074,710	868,381	813,642	—	—	5,756,733
Investment in wholly-owned subsidiaries, at equity	722,211	—	—	—	(722,211) [2]	—
Current assets						
Cash and cash equivalents	89,755	10,658	5,587	77	—	106,077
Restricted cash	2,000	—	—	—	—	2,000
Advances to affiliates	70,500	—	—	—	(70,500) [1]	—
Customer accounts receivable, net	172,747	38,216	33,346	—	—	244,309
Accrued unbilled revenues, net	136,367	25,102	24,175	—	—	185,644
Other accounts receivable, net	143,160	13,318	32,521	—	(77,480) [1]	111,519
Fuel oil stock, at average cost	108,228	17,968	22,041	—	—	148,237
Materials and supplies, at average cost	64,334	14,397	35,702	—	—	114,433
Prepayments and other	40,767	7,724	11,638	—	(1,638) [1]	58,491
Regulatory assets	58,920	5,771	3,762	—	—	68,453
Total current assets	886,778	133,154	168,772	77	(149,618)	1,039,163
Other long-term assets						
Operating lease right-of-use assets	34,856	27,470	9,551	—	—	71,877
Regulatory assets	189,417	13,575	23,359	—	—	226,351
Other	134,033	36,439	33,129	—	(14,171) [1]	189,430
Total other long-term assets	358,306	77,484	66,039	—	(14,171)	487,658
Total assets	$ 6,042,005	1,079,019	1,048,453	77	(886,000)	$ 7,283,554
Capitalization and liabilities						
Capitalization						
Common stock equity	$ 2,409,110	359,790	362,344	77	(722,211) [2]	$ 2,409,110
Cumulative preferred stock–not subject to mandatory redemption	22,293	7,000	5,000	—	—	34,293
Long-term debt, net	1,426,516	249,339	258,422	—	—	1,934,277
Total capitalization	3,857,919	616,129	625,766	77	(722,211)	4,377,680
Current liabilities						
Current portion of operating lease liabilities	6,788	7,025	2,804	—	—	16,617
Short-term borrowings-affiliate	—	—	70,500	—	(70,500) [1]	—
Accounts payable	136,102	29,418	25,520	—	—	191,040
Interest and preferred dividends payable	17,085	3,098	3,074	—	(375) [1]	22,882
Taxes accrued, including revenue taxes	211,840	43,932	37,808	—	(1,638) [1]	291,942
Regulatory liabilities	20,013	8,508	8,038	—	—	36,559
Other	165,131	33,240	50,170	—	(77,105) [1]	171,436
Total current liabilities	556,959	125,221	197,914	—	(149,618)	730,476
Deferred credits and other liabilities						
Operating lease liabilities	34,262	20,792	7,044	—	—	62,098
Finance lease liabilities	295,935	35,043	—	—	—	330,978
Deferred income taxes	280,029	51,661	67,311	—	—	399,001
Regulatory liabilities	803,404	199,173	111,554	—	—	1,114,131
Unamortized tax credits	61,130	11,650	11,532	—	—	84,312
Defined benefit pension and other postretirement benefit plans liability	74,842	—	—	—	(14,171) [1]	60,671
Other	77,525	19,350	27,332		—	124,207
Total deferred credits and other liabilities	1,627,127	337,669	224,773	—	(14,171)	2,175,398
Total capitalization and liabilities	$ 6,042,005	1,079,019	1,048,453	77	(886,000)	$ 7,283,554

Consolidating balance sheet
December 31, 2022

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiary	Consolidating adjustments	Hawaiian Electric Consolidated
Assets						
Property, plant and equipment						
Utility property, plant and equipment						
Land	$ 42,860	5,606	3,594	—	—	$ 52,060
Plant and equipment	5,260,685	1,425,442	1,293,383	—	—	7,979,510
Finance lease right-of-use assets	48,371	—	—	—	—	48,371
Less accumulated depreciation	(1,855,150)	(644,457)	(586,892)	—	—	(3,086,499)
Construction in progress	215,560	23,989	35,804	—	—	275,353
Utility property, plant and equipment, net	3,712,326	810,580	745,889	—	—	5,268,795
Nonutility property, plant and equipment, less accumulated depreciation	5,298	115	1,532	—	—	6,945
Total property, plant and equipment, net	3,717,624	810,695	747,421	—	—	5,275,740
Investment in wholly-owned subsidiaries, at equity	701,833	—	—	—	(701,833) [2]	—
Current assets						
Cash and cash equivalents	27,579	5,092	6,494	77	—	39,242
Advances to affiliates	—	4,500	21,700	—	(26,200) [1]	—
Customer accounts receivable, net	216,802	39,339	32,197	—	—	288,338
Accrued unbilled revenues, net	136,508	23,839	22,933	—	—	183,280
Other accounts receivable, net	23,746	5,519	6,686	—	(22,384) [1]	13,567
Fuel oil stock, at average cost	153,342	16,964	21,224	—	—	191,530
Materials and supplies, at average cost	48,130	9,783	21,655	—	—	79,568
Prepayments and other	24,040	6,346	4,137	—	(1,041) [1]	33,482
Regulatory assets	46,504	2,435	3,334	—	—	52,273
Total current assets	676,651	113,817	140,360	77	(49,625)	881,280
Other long-term assets						
Operating lease right-of-use assets	42,752	34,283	12,283	—	—	89,318
Regulatory assets	154,040	21,816	14,384	—	—	190,240
Other	115,028	32,654	29,495	—	(16,288) [1]	160,889
Total other long-term assets	311,820	88,753	56,162	—	(16,288)	440,447
Total assets	$ 5,407,928	1,013,265	943,943	77	(767,746)	$ 6,597,467
Capitalization and liabilities						
Capitalization						
Common stock equity	$ 2,344,170	344,720	357,036	77	(701,833) [2]	$ 2,344,170
Cumulative preferred stock–not subject to mandatory redemption	22,293	7,000	5,000	—	—	34,293
Long-term debt, net	1,126,915	224,439	233,500	—	—	1,584,854
Total capitalization	3,493,378	576,159	595,536	77	(701,833)	3,963,317
Current liabilities						
Current portion of operating lease liabilities	9,775	6,690	2,630	—	—	19,095
Current portion of long-term debt, net	49,981	19,992	29,989	—	—	99,962
Short-term borrowings-non-affiliate	87,967	—	—	—	—	87,967
Short-term borrowings-affiliate	26,200	—	—	—	(26,200) [1]	—
Accounts payable	143,253	32,113	27,126	—	—	202,492
Interest and preferred dividends payable	12,398	2,576	2,282	—	(80) [1]	17,176
Taxes accrued, including revenue taxes	207,798	42,436	40,709	—	(1,041) [1]	289,902
Regulatory liabilities	13,145	8,553	9,777	—	—	31,475
Other	64,659	20,856	22,385	—	(22,304) [1]	85,596
Total current liabilities	615,176	133,216	134,898	—	(49,625)	833,665
Deferred credits and other liabilities						
Operating lease liabilities	41,049	27,817	9,849	—	—	78,715
Finance lease liabilities	46,048	—	—	—	—	46,048
Deferred income taxes	271,234	50,615	62,581	—	—	384,430
Regulatory liabilities	729,683	194,222	100,270	—	—	1,024,175
Unamortized tax credits	69,614	13,150	12,536	—	—	95,300
Defined benefit pension and other postretirement benefit plans liability	65,907	129	—	—	(16,288) [1]	49,748
Other	75,839	17,957	28,273		—	122,069
Total deferred credits and other liabilities	1,299,374	303,890	213,509	—	(16,288)	1,800,485
Total capitalization and liabilities	$ 5,407,928	1,013,265	943,943	77	(767,746)	$ 6,597,467

Consolidating statements of changes in common stock equity

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiary	Consolidating adjustments	Hawaiian Electric Consolidated
Balance, December 31, 2020	**$ 2,141,918**	**317,451**	**309,363**	**77**	**(626,891)**	**$ 2,141,918**
Net income for common stock	177,642	21,180	24,173	—	(45,353)	177,642
Other comprehensive income (loss), net of taxes	(361)	66	227	—	(293)	(361)
Issuance of common stock, net of expenses	54,400	8,803	24,597	—	(33,400)	54,400
Common stock dividends	(111,700)	(14,600)	(15,100)	—	29,700	(111,700)
Balance, December 31, 2021	**2,261,899**	**332,900**	**343,260**	**77**	**(676,237)**	**2,261,899**
Net income for common stock	188,929	21,816	25,677	—	(47,493)	188,929
Other comprehensive income, net of taxes	6,141	381	276	—	(657)	6,141
Issuance of common stock, net of expenses	13,101	6,023	3,023	—	(9,046)	13,101
Common stock dividends	(125,900)	(16,400)	(15,200)	—	31,600	(125,900)
Balance, December 31, 2022	**2,344,170**	**344,720**	**357,036**	**77**	**(701,833)**	**2,344,170**
Net income for common stock	193,952	28,507	16,302	—	(44,809)	193,952
Other comprehensive income (loss), net of taxes	(12)	(12)	31	—	(19)	(12)
Common stock dividends	(129,000)	(13,425)	(11,025)	—	24,450	(129,000)
Balance, December 31, 2023	**2,409,110**	**359,790**	**362,344**	**77**	**(722,211)**	**2,409,110**

Consolidating statement of cash flows
Year ended December 31, 2023

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiary	Consolidating adjustments	Hawaiian Electric Consolidated
Cash flows from operating activities						
Net income	$ 195,032	29,041	16,683	—	(44,809) [2]	$ 195,947
Adjustments to reconcile net income to net cash provided by operating activities						
Equity in earnings of subsidiaries	(44,809)	—	—	—	44,809 [2]	—
Common stock dividends received from subsidiaries	24,450	—	—	—	(24,450) [2]	—
Depreciation of property, plant and equipment	164,150	42,541	37,014	—	—	243,705
Other amortization	17,692	5,003	3,795	—	—	26,490
Deferred income tax expense (benefit)	(851)	(296)	2,586	—	—	1,439
State refundable credit	(7,577)	(1,782)	(1,966)	—	—	(11,325)
Bad debt expense	5,565	1,353	1,243	—	—	8,161
Allowance for equity funds used during construction	(11,721)	(1,411)	(2,032)	—	—	(15,164)
Other	380	(46)	126	—	—	460
Changes in assets and liabilities:						
Increase in accounts receivable	(83,401)	(7,398)	(29,301)	—	55,096 [1]	(65,004)
Decrease (increase) in accrued unbilled revenues	8	(1,308)	(1,748)	—	—	(3,048)
Decrease (increase) in fuel oil stock	45,114	(1,004)	(817)	—	—	43,293
Increase in materials and supplies	(16,204)	(4,614)	(14,047)	—	—	(34,865)
Decrease (increase) in regulatory assets	(6,616)	5,501	(9,498)	—	—	(10,613)
Increase (decrease) in regulatory liabilities	48,833	(1,176)	6,813	—	—	54,470
Increase in accounts payable	13,988	5,998	468	—	—	20,454
Change in prepaid and accrued income taxes, tax credits and revenue taxes	4,314	2,407	(4,843)	—	—	1,878
Decrease in defined benefit pension and other postretirement benefit plans liability	(5,653)	(1,348)	(1,185)	—	—	(8,186)
Change in other assets and liabilities	62,010	2,056	17,305	—	(55,096) [1]	26,275
Net cash provided by operating activities	404,704	73,517	20,596	—	(24,450)	474,367
Cash flows from investing activities						
Capital expenditures	(276,600)	(63,889)	(98,286)	—	—	(438,775)
Advances from (to) affiliates	(70,500)	4,500	21,700	—	44,300 [1]	—
Other	4,118	932	1,126	—	—	6,176
Net cash used in investing activities	(342,982)	(58,457)	(75,460)	—	44,300	(432,599)
Cash flows from financing activities						
Common stock dividends	(129,000)	(13,425)	(11,025)	—	24,450 [2]	(129,000)
Preferred stock dividends of Hawaiian Electric and subsidiaries	(1,080)	(534)	(381)	—	—	(1,995)
Proceeds from issuance of long-term debt	300,000	25,000	25,000	—	—	350,000
Repayment of long-term debt	(50,000)	(20,000)	(30,000)	—	—	(100,000)
Net increase (decrease) in short-term borrowings from non-affiliates and affiliate with original maturities of three months or less	(114,167)	—	70,500	—	(44,300) [1]	(87,967)
Payments of obligations under finance leases	(2,728)	(400)	—	—	—	(3,128)
Other	(571)	(135)	(137)	—	—	(843)
Net cash provided by (used in) financing activities	2,454	(9,494)	53,957	—	(19,850)	27,067
Net increase (decrease) in cash, cash equivalents and restricted cash	64,176	5,566	(907)	—	—	68,835
Cash, cash equivalents and restricted cash, January 1	27,579	5,092	6,494	77	—	39,242
Cash, cash equivalents and restricted cash, December 31	91,755	10,658	5,587	77	—	108,077
Less: Restricted cash	(2,000)	—	—	—	—	(2,000)
Cash and cash equivalents, December 31	$ 89,755	10,658	5,587	77	—	$ 106,077

Consolidating statement of cash flows
Year ended December 31, 2022

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiary	Consolidating adjustments	Hawaiian Electric Consolidated
Cash flows from operating activities						
Net income	$ 190,009	22,350	26,058	—	(47,493) [2]	$ 190,924
Adjustments to reconcile net income to net cash provided by operating activities						
Equity in earnings of subsidiaries	(47,493)	—	—	—	47,493 [2]	—
Common stock dividends received from subsidiaries	31,600	—	—	—	(31,600) [2]	—
Depreciation of property, plant and equipment	158,725	41,404	35,295	—	—	235,424
Other amortization	16,708	4,996	3,616	—	—	25,320
Deferred income taxes	(33,648)	(4,040)	(3,727)	—	—	(41,415)
State refundable credit	(7,375)	(1,734)	(1,890)	—	—	(10,999)
Bad debt expense	4,175	1,073	779	—	—	6,027
Allowance for equity funds used during construction	(8,464)	(898)	(1,212)	—	—	(10,574)
Other	(65)	(50)	(24)	—	—	(139)
Changes in assets and liabilities:						
Increase in accounts receivable	(74,067)	(11,644)	(10,680)	—	4,649 [1]	(91,742)
Increase in accrued unbilled revenues	(43,972)	(4,289)	(5,762)	—	—	(54,023)
Increase in fuel oil stock	(82,158)	(4,150)	(1,144)	—	—	(87,452)
Increase in materials and supplies	(6,124)	(56)	(1,511)	—	—	(7,691)
Decrease in regulatory assets	28,076	1,546	4,978	—	—	34,600
Increase in regulatory liabilities	28,621	7,977	8,290		—	44,888
Decrease in accounts payable	18,657	3,294	404	—	—	22,355
Change in prepaid and accrued income taxes, tax credits and revenue taxes	77,903	11,117	14,178	—	—	103,198
Decrease in defined benefit pension and other postretirement benefit plans liability	(3,545)	(626)	(657)	—	—	(4,828)
Change in other assets and liabilities	(17,884)	213	(3,623)	—	(4,649) [1]	(25,943)
Net cash provided by operating activities	229,679	66,483	63,368	—	(31,600)	327,930
Cash flows from investing activities						
Capital expenditures	(223,223)	(49,004)	(57,230)	—	—	(329,457)
Advances from (to) affiliates	1,000	(4,500)	(21,700)	—	25,200 [1]	—
Other	(5,687)	760	1,253	—	9,046 [1],[2]	5,372
Net cash used in investing activities	(227,910)	(52,744)	(77,677)	—	34,246	(324,085)
Cash flows from financing activities						
Common stock dividends	(125,900)	(16,400)	(15,200)	—	31,600 [2]	(125,900)
Preferred stock dividends of Hawaiian Electric and subsidiaries	(1,080)	(534)	(381)	—	—	(1,995)
Proceeds from the issuance of common stock	13,101	6,023	3,023	—	(9,046) [2]	13,101
Proceeds from the issuance of long-term debt	40,000	10,000	10,000	—	—	60,000
Repayment of long-term debt	(40,000)	(12,000)	—	—	—	(52,000)
Net increase (decrease) in short-term borrowings from non-affiliates and affiliate with original maturities of three months or less	114,167	(1,000)	—	—	(25,200) [1]	87,967
Payments of obligations under finance leases	(670)	—	—	—	—	(670)
Other	(241)	(62)	(61)	—	—	(364)
Net cash used in financing activities	(623)	(13,973)	(2,619)	—	(2,646)	(19,861)
Net increase (decrease) in cash, cash equivalents and restricted cash	1,146	(234)	(16,928)	—	—	(16,016)
Cash, cash equivalents and restricted cash, January 1	26,433	5,326	23,422	77	—	55,258
Cash, cash equivalents and restricted cash, December 31	27,579	5,092	6,494	77	—	39,242
Less: Restricted cash	—	—	—	—	—	—
Cash and cash equivalents, December 31	$ 27,579	5,092	6,494	77	—	$ 39,242

Consolidating statement of cash flows
Year ended December 31, 2021

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiary	Consolidating adjustments		Hawaiian Electric Consolidated
Cash flows from operating activities							
Net income	$ 178,722	21,714	24,554	—	(45,353)	[2]	$ 179,637
Adjustments to reconcile net income to net cash provided by operating activities							
Equity in earnings of subsidiaries	(45,353)	—	—	—	45,353	[2]	—
Common stock dividends received from subsidiaries	29,700	—	—	—	(29,700)	[2]	—
Depreciation of property, plant and equipment	155,607	40,201	33,661	—	—		229,469
Other amortization	16,688	3,532	1,517	—	—		21,737
Deferred income tax expense (benefit)	(3,191)	(1,955)	1,317	—	—		(3,829)
State refundable credit	(7,120)	(1,672)	(1,790)	—	—		(10,582)
Bad debt expense	1,159	509	515	—	—		2,183
Allowance for equity funds used during construction	(7,734)	(586)	(1,214)	—	—		(9,534)
Bill credits	1,400	300	300	—	—		2,000
Other	366	(41)	1,025	—	—		1,350
Changes in assets and liabilities:							
Increase in accounts receivable	(41,727)	(6,832)	(3,071)	—	1,540	[1]	(50,090)
Increase in accrued unbilled revenues	(18,345)	(5,816)	(3,303)	—	—		(27,464)
Increase in fuel oil stock	(32,407)	(4,343)	(9,090)	—	—		(45,840)
Decrease (increase) in materials and supplies	(3,220)	169	(1,482)	—	—		(4,533)
Decrease (increase) in regulatory assets	(15,422)	24	1,524	—	—		(13,874)
Increase (decrease) in regulatory liabilities	16,269	(1,031)	120	—	—		15,358
Decrease in accounts payable	9,828	4,723	3,120	—	—		17,671
Change in prepaid and accrued income taxes, tax credits and revenue taxes	21,217	3,861	1,938	—	(86)	[1]	26,930
Decrease in defined benefit pension and other postretirement benefit plans liability	(3,480)	(950)	(724)	—	—		(5,154)
Change in other assets and liabilities	(36,733)	(5,833)	(8,196)	—	(1,540)	[1]	(52,302)
Net cash provided by operating activities	216,224	45,974	40,721	—	(29,786)		273,133
Cash flows from investing activities							
Capital expenditures	(194,984)	(50,516)	(46,500)	—	—		(292,000)
Advances to affiliates	25,700	—	—	—	(25,700)	[1]	—
Other	(29,596)	1,072	1,073	—	33,486	[1][2]	6,035
Net cash used in investing activities	(198,880)	(49,444)	(45,427)	—	7,786		(285,965)
Cash flows from financing activities							
Common stock dividends	(111,700)	(14,600)	(15,100)	—	29,700	[2]	(111,700)
Preferred stock dividends of Hawaiian Electric and subsidiaries	(1,080)	(534)	(381)	—	—		(1,995)
Proceeds from the issuance of common stock	54,400	8,803	24,597	—	(33,400)	[2]	54,400
Proceeds from the issuance of long-term debt	60,000	30,000	25,000	—	—		115,000
Net increase (decrease) in short-term borrowings from non-affiliates and affiliate with original maturities of three months or less	—	(17,800)	(7,900)	—	25,700	[1]	—
Repayment of short-term debt	(50,000)	—	—	—	—		(50,000)
Other	(702)	(119)	(120)	—	—		(941)
Net cash provided by (used in) financing activities	(49,082)	5,750	26,096	—	22,000		4,764
Net increase (decrease) in cash, cash equivalents and restricted cash	(31,738)	2,280	21,390	—	—		(8,068)
Cash, cash equivalents and restricted cash, January 1	58,171	3,046	2,032	77	—		63,326
Cash, cash equivalents and restricted cash, December 31	26,433	5,326	23,422	77	—		55,258
Less: Restricted cash	(3,089)	—	—	—	—		(3,089)
Cash and cash equivalents, December 31	$ 23,344	5,326	23,422	77	—		$ 52,169

Explanation of consolidating adjustments on consolidating schedules:

[1] Eliminations of intercompany receivables and payables and other intercompany transactions
[2] Elimination of investment in subsidiaries, carried at equity

Note 5 · Bank segment (HEI only)

Selected financial information

American Savings Bank, F.S.B.

Statements of Income and Comprehensive Income Data

Years ended December 31	2023	2022	2021
(in thousands)			
Interest and dividend income			
Interest and fees on loans	$ 276,688	$ 207,830	$ 198,802
Interest and dividends on investment securities	58,095	58,044	43,464
Total interest and dividend income	334,783	265,874	242,266
Interest expense			
Interest on deposit liabilities	48,905	7,327	4,981
Interest on other borrowings	33,892	5,974	59
Total interest expense	82,797	13,301	5,040
Net interest income	**251,986**	**252,573**	**237,226**
Provision for credit losses	10,357	2,037	(25,825)
Net interest income after provision for credit losses	**241,629**	**250,536**	**263,051**
Noninterest income			
Fees from other financial services	19,034	19,830	21,225
Fee income on deposit liabilities	19,131	18,762	16,663
Fee income on other financial products	10,616	10,291	8,770
Bank-owned life insurance	7,390	2,533	7,318
Mortgage banking income	910	1,692	9,305
Gain on sale of real estate	495	1,778	—
Gain (loss) on sale of investment securities, net	(14,965)	—	528
Other income, net	2,799	2,086	851
Total noninterest income	45,410	56,972	64,660
Noninterest expense			
Compensation and employee benefits	118,297	113,839	113,970
Occupancy	21,703	24,026	20,584
Data processing	20,545	17,681	17,634
Services	13,943	10,679	10,327
Equipment	11,842	10,100	9,510
Office supplies, printing and postage	4,315	4,398	4,239
Marketing	4,001	3,968	3,870
FDIC insurance	6,230	3,591	3,235
Other expense	22,762	16,985	13,783
Total noninterest expense	223,638	205,267	197,152
Income before income taxes	**63,401**	**102,241**	**130,559**
Income taxes	10,039	22,252	29,325
Net income	**53,362**	**79,989**	**101,234**
Other comprehensive income (loss), net of taxes	44,343	(298,833)	(52,728)
Comprehensive income (loss)	**$ 97,705**	**$ (218,844)**	**$ 48,506**

Reconciliation to amounts per HEI Consolidated Statements of Income*:

Years ended December 31	2023	2022	2021
(in thousands)			
Interest and dividend income	$ 334,783	$ 265,874	$ 242,266
Noninterest income	45,410	56,972	64,660
Less: Gain on sale of real estate	495	1,778	—
Less: Loss on sale of investment securities, net	(14,965)	—	528
***Revenues-Bank**	**394,663**	**321,068**	**306,398**
Total interest expense	82,797	13,301	5,040
Provision for credit losses	10,357	2,037	(25,825)
Noninterest expense	223,638	205,267	197,152
Less: Retirement defined benefits expense (credit)—other than service costs	(754)	(723)	(1,828)
Add: Gain on sale of real estate	495	1,778	—
***Expenses-Bank**	**317,051**	**219,550**	**178,195**
***Operating income-Bank**	**77,612**	**101,518**	**128,203**
Add back: Retirement defined benefits expense (credit)—other than service costs	(754)	(723)	(1,828)
Add back: Loss on sale of investment securities, net	(14,965)	—	528
Income before income taxes	**$ 63,401**	**$ 102,241**	**$ 130,559**

Balance Sheets Data

December 31		2023		2022
(in thousands)				
Assets				
Cash and due from banks		$ 184,383		$ 153,042
Interest-bearing deposits		251,072		3,107
Cash and cash equivalents		435,455		156,149
Investment securities				
Available-for-sale, at fair value		1,136,439		1,429,667
Held-to-maturity, at amortized cost (fair value of $1,103,668 and $1,150,971 at December 31, 2023 and 2022, respectively)		1,201,314		1,251,747
Stock in Federal Home Loan Bank, at cost		14,728		26,560
Loans held for investment		6,180,810		5,978,906
Allowance for credit losses		(74,372)		(72,216)
Net loans		6,106,438		5,906,690
Loans held for sale, at lower of cost or fair value		15,168		824
Other		681,460		692,143
Goodwill		82,190		82,190
Total assets		$ 9,673,192		$ 9,545,970
Liabilities and shareholder's equity				
Deposit liabilities–noninterest-bearing		$ 2,599,762		$ 2,811,077
Deposit liabilities–interest-bearing		5,546,016		5,358,619
Other borrowings		750,000		695,120
Other		247,563		212,269
Total liabilities		9,143,341		9,077,085
Commitments and contingencies				
Common stock		1		1
Additional paid in capital		358,067		355,806
Retained earnings		464,055		449,693
Accumulated other comprehensive loss, net of tax benefits				
Net unrealized losses on securities	$ (282,963)		$ (328,904)	
Retirement benefit plans	(9,309)	(292,272)	(7,711)	(336,615)
Total shareholder's equity		529,851		468,885
Total liabilities and shareholder's equity		$ 9,673,192		$ 9,545,970

December 31	2023	2022
(in thousands)		
Other assets		
Bank-owned life insurance	$ 187,857	$ 182,986
Premises and equipment, net	187,042	195,324
Accrued interest receivable	28,472	25,077
Mortgage servicing rights	8,169	9,047
Low-income housing investments	112,234	106,978
Deferred tax asset	104,292	116,441
Other	53,394	56,290
	$ 681,460	$ 692,143
Other liabilities		
Accrued expenses	$ 115,231	$ 97,295
Federal income taxes payable	—	863
Cashier's checks	40,479	36,401
Advance payments by borrowers	10,107	9,637
Other	81,746	68,073
	$ 247,563	$ 212,269

Bank-owned life insurance is life insurance purchased by ASB on the lives of certain key employees, with ASB as the beneficiary. The insurance is used to fund employee benefits through tax-free income from increases in the cash value of the policies and insurance proceeds paid to ASB upon an insured's death.

Investment securities. The major components of investment securities were as follows:

					Gross unrealized losses					
					Less than 12 months			12 months or longer		
(dollars in thousands)	Amortized cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value	Number of issues	Fair value	Amount	Number of issues	Fair value	Amount
December 31, 2023										
Available-for-sale										
U.S. Treasury and federal agency obligations	$ 12,437	$ —	$ (427)	$ 12,010	—	$ —	$ —	9	$ 12,010	$ (427)
Mortgage-backed securities*	1,279,852	—	(202,684)	1,077,168	3	1,649	(22)	116	1,075,519	(202,662)
Corporate bonds	35,239	—	(2,336)	32,903	—	—	—	3	32,903	(2,336)
Mortgage revenue bonds	14,358	—	—	14,358	—	—	—	—	—	—
	$1,341,886	$ —	$(205,447)	$ 1,136,439	3	$ 1,649	$ (22)	128	$ 1,120,432	$(205,425)
Held-to-maturity										
U.S. Treasury and federal agency obligations	$ 59,917	$ —	$ (7,135)	$ 52,782	—	$ —	$ —	3	$ 52,782	$ (7,135)
Mortgage-backed securities*	1,141,397	2,221	(92,732)	1,050,886	37	378,326	(7,610)	43	432,082	(85,122)
	$1,201,314	$ 2,221	$ (99,867)	$ 1,103,668	37	$ 378,326	$ (7,610)	46	$ 484,864	$ (92,257)
December 31, 2022										
Available-for-sale										
U.S. Treasury and federal agency obligations	$ 88,344	$ —	$ (7,281)	$ 81,063	12	$ 41,201	$ (2,120)	4	$ 39,862	$ (5,161)
Mortgage-backed securities*	1,530,582	—	(237,614)	1,292,968	113	455,836	(56,999)	70	837,132	(180,615)
Corporate bonds	44,377	—	(3,643)	40,734	4	29,644	(2,028)	1	11,090	(1,615)
Mortgage revenue bonds	14,902	—	—	14,902	—	—	—	—	—	—
	$1,678,205	$ —	$(248,538)	$ 1,429,667	129	$ 526,681	$(61,147)	75	$ 888,084	$(187,391)
Held-to-maturity										
U.S. Treasury and federal agency obligations	$ 59,894	$ —	$ (8,478)	$ 51,416	1	$ 16,874	$ (3,222)	2	$ 34,542	$ (5,256)
Mortgage-backed securities*	1,191,853	2,670	(94,968)	1,099,555	22	183,629	(10,593)	51	567,250	(84,375)
	$1,251,747	$ 2,670	$(103,446)	$ 1,150,971	23	$ 200,503	$(13,815)	53	$ 601,792	$ (89,631)

* Issued or guaranteed by U.S. Government agencies or sponsored agencies

ASB does not believe that the investment securities that were in an unrealized loss position as of December 31, 2023, represent a credit loss. Total gross unrealized losses were primarily attributable to change in market conditions. On a quarterly basis the investment securities are evaluated for changes in financial condition of the issuer. Based upon ASB's evaluation, all securities held within the investment portfolio continue to be rated investment grade by one or more agencies. The contractual cash flows of the U.S. Treasury, federal agency obligations and agency mortgage-backed securities are backed by the full faith and credit guaranty of the United States government or an agency of the government. ASB does not intend to sell the securities before the recovery of its amortized cost basis and there have been no adverse changes in the timing of the contractual cash flows for the securities. ASB's investment securities portfolio did not require an allowance for credit losses as of December 31, 2023.

U.S. Treasury, federal agency obligations, corporate bonds, and mortgage revenue bonds have contractual terms to maturity. Mortgage-backed securities have contractual terms to maturity, but require periodic payments to reduce principal. In addition, expected maturities will differ from contractual maturities because borrowers have the right to prepay the underlying mortgages.

The contractual maturities of investment securities were as follows:

December 31, 2023	Amortized Cost	Fair value
(in thousands)		
Available-for-sale		
Due in one year or less	$ 1,419	$ 1,404
Due after one year through five years	46,257	43,509
Due after five years through ten years	14,358	14,358
Due after ten years	—	—
	62,034	59,271
Mortgage-backed securities — issued or guaranteed by U.S. Government agencies or sponsored agencies	1,279,852	1,077,168
Total available-for-sale securities	$ 1,341,886	$ 1,136,439
Held-to-maturity		
Due in one year or less	$ —	$ —
Due after one year through five years	39,832	35,597
Due after five years through ten years	20,085	17,185
Due after ten years	—	—
	59,917	52,782
Mortgage-backed securities — issued or guaranteed by U.S. Government agencies or sponsored agencies	1,141,397	1,050,886
Total held-to-maturity securities	$ 1,201,314	$ 1,103,668

The proceeds, gross gains and losses from sales of available-for-sale securities were as follows:

Years ended December 31	2023	2022	2021
(in thousands)			
Proceeds	$ 170,481	$ —	$ 197,354
Gross gains	—	—	975
Gross losses	(14,965)	—	(447)
Tax expense (benefit) on realized gains (losses)	(4,011)	—	142

Interest income from taxable and non-taxable investment securities were as follows:

Years ended December 31	2023	2022	2021
(in thousands)			
Taxable	$ 56,450	$ 56,731	$ 42,534
Non-taxable	1,645	1,313	930
	$ 58,095	$ 58,044	$ 43,464

ASB pledged securities with a market value of approximately $1.7 billion and $0.9 billion as of December 31, 2023 and 2022, respectively, as collateral for public funds and other deposits, mortgage pipeline hedge margin, automated clearinghouse transactions, the Federal Reserve Bank of San Francisco discount window and bankruptcy account, and the Federal Home Loan Bank of Des Moines advance line. In addition, ASB pledged securities with a market value of nil and $327 million as of December 31, 2023 and 2022, respectively, as collateral for securities sold under agreements to repurchase.

Transfer of available-for-sale securities to held-to-maturity. In October 2022, ASB transferred 66 available-for-sale investment securities with a fair value of $755 million to the held-to-maturity category. On the date of transfer, these securities had a total unrealized loss of $206 million, which will be amortized from accumulated other comprehensive loss over the remaining life of the securities to Interest and dividends on investment securities in the statements of income and comprehensive income data. The unamortized amount was $133 million at December 31, 2023.

These transfers were executed to mitigate the potential future impact to capital through accumulated other comprehensive loss and the impact of rising rates on the market value of the investment securities. ASB believes that it maintains sufficient liquidity for future business needs and it has the positive intent and ability to hold these securities to maturity.

Stock in FHLB. As of December 31, 2023 and 2022, ASB's stock in FHLB was carried at cost ($14.7 million and $26.6 million, respectively) because it can only be redeemed at par and it is a required investment based on measurements of ASB's capital, assets and borrowing levels.

Quarterly and as conditions warrant, ASB reviews its investment in the stock of the FHLB for impairment. ASB evaluated its investment in FHLB stock for credit losses as of December 31, 2023, consistent with its accounting policy. ASB did not recognize any credit losses for 2023, 2022 and 2021 based on its evaluation of the underlying investment.

Future deterioration in the FHLB's financial position and/or negative developments in any of the factors considered in ASB's impairment evaluation may result in future impairment losses.

Loans. The components of loans were summarized as follows:

December 31	2023	2022
(in thousands)		
Real estate:		
Residential 1-4 family	$ 2,595,162	$ 2,479,637
Commercial real estate	1,374,038	1,358,123
Home equity line of credit	1,017,207	1,002,905
Residential land	18,364	20,679
Commercial construction	172,405	88,489
Residential construction	17,843	20,788
Total real estate	5,195,019	4,970,621
Commercial	743,303	779,691
Consumer	272,256	254,709
Total loans	6,210,578	6,005,021
Less: Deferred fees and discounts	(29,768)	(26,115)
Allowance for credit losses	(74,372)	(72,216)
Total loans, net	$ 6,106,438	$ 5,906,690

ASB's policy is to require private mortgage insurance on all real estate loans when the loan-to-value ratio of the property exceeds 80% of the lower of the appraised value or purchase price at origination.

ASB services real estate loans for investors (principal balance of $1.5 billion, $1.5 billion and $1.5 billion as of December 31, 2023, 2022 and 2021, respectively), which are not included in the accompanying balance sheets data. ASB reports fees earned for servicing such loans as income when the related mortgage loan payments are collected and charges loan servicing cost to expense as incurred.

As of December 31, 2023 and 2022, ASB had pledged loans with an amortized cost of approximately $3.2 billion and $3.0 billion, respectively, as collateral to secure advances from the FHLB.

As of December 31, 2023 and 2022, the aggregate amount of loans to directors and executive officers of ASB and its affiliates and any related interests (as defined in Federal Reserve Board (FRB) Regulation O) of such individuals, was $23.5 million and $10.7 million, respectively. As of December 31, 2023 and 2022, there were loans to a related interest of a director of ASB totaling $21.6 million and $10.0 million, respectively. The loans were made at ASB's normal credit terms.

Allowance for credit losses. As discussed in Note 1, ASB must maintain an allowance for credit losses that is adequate to absorb estimated expected credit losses associated with its loan portfolio.

The allowance for credit losses (balances and changes) and financing receivables by portfolio segment were as follows:

(in thousands)	Residential 1-4 family	Commercial real estate	Home equity line of credit	Residential land	Commercial construction	Residential construction	Commercial	Consumer	Total
December 31, 2023									
Allowance for credit losses:									
Beginning balance	$ 6,270	$ 21,898	$ 6,125	$ 717	$ 1,195	$ 46	$ 12,426	$ 23,539	$ 72,216
Charge-offs	(994)	—	(375)	—	—	—	(723)	(11,227)	(13,319)
Recoveries	89	—	176	4	—	—	1,983	3,566	5,818
Net (charge-offs) recoveries	(905)	—	(199)	4	—	—	1,260	(7,661)	(7,501)
Provision	2,070	287	1,852	(100)	2,408	(3)	(4,564)	7,707	9,657
Ending balance	$ 7,435	$ 22,185	$ 7,778	$ 621	$ 3,603	$ 43	$ 9,122	$ 23,585	$ 74,372
Average loans outstanding	$2,523,767	$1,380,924	$1,030,983	$ 20,077	$ 127,332	$ 17,634	$ 754,601	$ 258,149	$6,113,467
Net charge-offs (recoveries) to average loans	0.04 %	—%	0.02%	(0.02%)	—%	—%	(0.17%)	2.97%	0.12%
December 31, 2022									
Allowance for credit losses:									
Beginning balance	$ 6,545	$ 24,696	$ 5,657	$ 646	$ 2,186	$ 18	$ 15,798	$ 15,584	$ 71,130
Charge-offs	(13)	—	—	—	—	—	(563)	(6,254)	(6,830)
Recoveries	79	—	71	104	—	—	1,288	3,837	5,379
Net (charge-offs) recoveries	66	—	71	104	—	—	725	(2,417)	(1,451)
Provision	(341)	(2,798)	397	(33)	(991)	28	(4,097)	10,372	2,537
Ending balance	$ 6,270	$ 21,898	$ 6,125	$ 717	$ 1,195	$ 46	$ 12,426	$ 23,539	$ 72,216
Average loans outstanding	$2,331,473	$1,204,756	$ 918,563	$ 21,442	$ 90,021	$ 18,317	$ 710,658	$ 161,722	$5,456,952
Net charge-offs (recoveries) to average loans	— %	—%	(0.01%)	(0.49%)	—%	—%	(0.10%)	1.49%	0.03%
December 31, 2021									
Allowance for credit losses:									
Beginning balance	$ 4,600	$ 35,607	$ 6,813	$ 609	$ 4,149	$ 11	$ 25,462	$ 23,950	$ 101,201
Charge-offs	(67)	—	(45)	—	—	—	(1,561)	(8,027)	(9,700)
Recoveries	92	—	113	61	—	—	1,468	4,320	6,054
Net (charge-offs) recoveries	25	—	68	61	—	—	(93)	(3,707)	(3,646)
Provision	1,920	(10,911)	(1,224)	(24)	(1,963)	7	(9,571)	(4,659)	(26,425)
Ending balance	$ 6,545	$ 24,696	$ 5,657	$ 646	$ 2,186	$ 18	$ 15,798	$ 15,584	$ 71,130
Average loans outstanding	$2,155,322	$1,046,276	$ 885,759	$ 18,227	$ 111,711	$ 11,361	$ 856,226	$ 135,609	$5,220,491
Net charge-offs (recoveries) to average loans	— %	—%	(0.01%)	(0.33%)	—%	—%	0.01%	2.73%	0.07%

Allowance for loan commitments. The allowance for loan commitments by portfolio segment were as follows:

(in thousands)	Home equity line of credit	Commercial construction	Commercial loans	Total
Year ended December 31, 2023				
Allowance for loan commitments:				
Beginning balance	$ 400	$ 2,600	$ 1,400	$ 4,400
Provision	200	1,700	(1,200)	700
Ending balance	$ 600	$ 4,300	$ 200	$ 5,100
Year ended December 31, 2022				
Allowance for loan commitments:				
Beginning balance	$ 400	$ 3,700	$ 800	$ 4,900
Provision	—	(1,100)	600	(500)
Ending balance	$ 400	$ 2,600	$ 1,400	$ 4,400
Year ended December 31, 2021				
Allowance for loan commitments:				
Beginning balance	$ 300	$ 3,000	$ 1,000	$ 4,300
Provision	100	700	(200)	600
Ending balance	$ 400	$ 3,700	$ 800	$ 4,900

Credit quality. ASB performs an internal loan review and grading on an ongoing basis. The review provides management with periodic information as to the quality of the loan portfolio and effectiveness of its lending policies and procedures. The objectives of the loan review and grading procedures are to identify, in a timely manner, existing or emerging credit trends so that appropriate steps can be initiated to manage risk and avoid or minimize future losses. Loans subject to grading include commercial, commercial real estate and commercial construction loans.

Each commercial and commercial real estate loan is assigned an Asset Quality Rating (AQR) reflecting the likelihood of repayment or orderly liquidation of that loan transaction pursuant to regulatory credit classifications: Pass, Special Mention, Substandard, Doubtful, and Loss. The AQR is a function of the probability of default model rating, the loss given default, and possible non-model factors which impact the ultimate collectability of the loan such as character of the business owner/guarantor, interim period performance, litigation, tax liens and major changes in business and economic conditions. Pass exposures generally are well protected by the current net worth and paying capacity of the obligor or by the value of the asset or underlying collateral. Special Mention loans have potential weaknesses that, if left uncorrected, could jeopardize the liquidation of the debt. Substandard loans have well-defined weaknesses that jeopardize the liquidation of the debt and are characterized by the distinct possibility that ASB may sustain some loss. An asset classified Doubtful has the weaknesses of those classified Substandard, with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently existing facts, conditions, and values, highly questionable and improbable. An asset classified Loss is considered uncollectible and has such little value that its continuance as a bankable asset is not warranted.

The credit risk profile by vintage date based on payment activity or internally assigned grade for loans was as follows:

	Term loans by origination year						Revolving loans		
(in thousands)	2023	2022	2021	2020	2019	Prior	Revolving loans	Converted to term loans	Total
December 31, 2023									
Residential 1-4 family									
Current	$ 263,605	$ 407,304	$ 729,256	$ 399,766	$ 104,487	$ 672,408	$ —	$ —	$ 2,576,826
30-59 days past due	—	708	—	268	—	3,525	—	—	4,501
60-89 days past due	—	726	2,694	—	—	1,745	—	—	5,165
Greater than 89 days past due	—	2,519	871	1,129	489	3,662	—	—	8,670
	263,605	411,257	732,821	401,163	104,976	681,340	—	—	2,595,162
Current YTD period									
Gross charge-offs	—	—	—	—	—	994	—	—	994
Home equity line of credit									
Current	—	—	—	—	—	—	954,461	59,146	1,013,607
30-59 days past due	—	—	—	—	—	—	1,219	262	1,481
60-89 days past due	—	—	—	—	—	—	597	—	597
Greater than 89 days past due	—	—	—	—	—	—	1,111	411	1,522
	—	—	—	—	—	—	957,388	59,819	1,017,207

	Term loans by origination year						Revolving loans		
(in thousands)	2023	2022	2021	2020	2019	Prior	Revolving loans	Converted to term loans	Total
Current YTD period									
Gross charge-offs	—	—	—	—	—	—	92	283	375
Residential land									
Current	3,788	4,097	7,234	1,847	—	723	—	—	17,689
30-59 days past due	—	—	—	—	—	—	—	—	—
60-89 days past due	—	675	—	—	—	—	—	—	675
Greater than 89 days past due	—	—	—	—	—	—	—	—	—
	3,788	4,772	7,234	1,847	—	723	—	—	18,364
Current YTD period									
Gross charge-offs	—	—	—	—	—	—	—	—	—
Residential construction									
Current	5,369	10,984	1,490	—	—	—	—	—	17,843
30-59 days past due	—	—	—	—	—	—	—	—	—
60-89 days past due	—	—	—	—	—	—	—	—	—
Greater than 89 days past due	—	—	—	—	—	—	—	—	—
	5,369	10,984	1,490	—	—	—	—	—	17,843
Current YTD period									
Gross charge-offs	—	—	—	—	—	—	—	—	—
Consumer									
Current	87,686	153,239	9,852	1,654	451	200	10,663	2,779	266,524
30-59 days past due	805	1,314	176	29	24	—	56	163	2,567
60-89 days past due	385	886	114	41	21	—	60	69	1,576
Greater than 89 days past due	354	786	101	24	34	—	67	223	1,589
	89,230	156,225	10,243	1,748	530	200	10,846	3,234	272,256
Current YTD period									
Gross charge-offs	2,139	6,539	1,032	194	378	40	422	483	11,227
Commercial real estate									
Pass	104,368	384,144	180,986	267,458	65,625	307,367	15,482	—	1,325,430
Special Mention	—	1,975	11,159	—	14,110	3,008	—	—	30,252
Substandard	—	—	1,538	—	11,048	5,770	—	—	18,356
Doubtful	—	—	—	—	—	—	—	—	—
	104,368	386,119	193,683	267,458	90,783	316,145	15,482	—	1,374,038
Current YTD period									
Gross charge-offs	—	—	—	—	—	—	—	—	—
Commercial construction									
Pass	45,863	33,240	26,133	1,333	—	—	65,836	—	172,405
Special Mention	—	—	—	—	—	—	—	—	—
Substandard	—	—	—	—	—	—	—	—	—
Doubtful	—	—	—	—	—	—	—	—	—
	45,863	33,240	26,133	1,333	—	—	65,836	—	172,405
Current YTD period									
Gross charge-offs	—	—	—	—	—	—	—	—	—
Commercial									
Pass	124,667	199,796	106,669	73,976	37,580	80,012	87,206	6,250	716,156
Special Mention	1,860	6,989	951	—	250	—	7,352	—	17,402
Substandard	—	2,962	1,848	98	60	3,369	1,275	133	9,745
Doubtful	—	—	—	—	—	—	—	—	—
	126,527	209,747	109,468	74,074	37,890	83,381	95,833	6,383	743,303
Current YTD period									
Gross charge-offs	$ —	$ —	$ 51	$ —	$ —	$ —	$ 332	$ 340	$ 723
Total loans	$ 638,750	$1,212,344	$1,081,072	$ 747,623	$ 234,179	$1,081,789	$1,145,385	$ 69,436	$ 6,210,578

	Term loans by origination year						Revolving loans		
(in thousands)	2022	2021	2020	2019	2018	Prior	Revolving loans	Converted to term loans	Total
December 31, 2022									
Residential 1-4 family									
Current	$ 432,707	$ 755,056	$ 423,455	$ 113,096	$ 51,860	$ 698,354	$ —	$ —	$ 2,474,528
30-59 days past due	—	—	—	—	448	1,098	—	—	1,546
60-89 days past due	—	—	268	—	—	90	—	—	358
Greater than 89 days past due	—	—	—	—	809	2,396	—	—	3,205
	432,707	755,056	423,723	113,096	53,117	701,938	—	—	2,479,637
Home equity line of credit									
Current	—	—	—	—	—	—	959,131	40,814	999,945
30-59 days past due	—	—	—	—	—	—	1,103	209	1,312
60-89 days past due	—	—	—	—	—	—	209	226	435
Greater than 89 days past due	—	—	—	—	—	—	587	626	1,213
	—	—	—	—	—	—	961,030	41,875	1,002,905
Residential land									
Current	5,245	9,010	5,222	203	522	477	—	—	20,679
30-59 days past due	—	—	—	—	—	—	—	—	—
60-89 days past due	—	—	—	—	—	—	—	—	—
Greater than 89 days past due	—	—	—	—	—	—	—	—	—
	5,245	9,010	5,222	203	522	477	—	—	20,679
Residential construction									
Current	7,986	11,624	1,178	—	—	—	—	—	20,788
30-59 days past due	—	—	—	—	—	—	—	—	—
60-89 days past due	—	—	—	—	—	—	—	—	—
Greater than 89 days past due	—	—	—	—	—	—	—	—	—
	7,986	11,624	1,178	—	—	—	—	—	20,788
Consumer									
Current	199,574	21,330	5,543	7,580	527	140	10,810	4,782	250,286
30-59 days past due	1,110	287	65	239	30	—	81	167	1,979
60-89 days past due	756	163	88	137	19	—	45	107	1,315
Greater than 89 days past due	621	105	37	176	28	—	20	142	1,129
	202,061	21,885	5,733	8,132	604	140	10,956	5,198	254,709
Commercial real estate									
Pass	390,206	177,130	283,321	51,542	63,084	278,280	8,235	—	1,251,798
Special Mention	—	11,250	3,446	40,423	—	24,466	—	—	79,585
Substandard	—	—	665	11,357	—	14,718	—	—	26,740
Doubtful	—	—	—	—	—	—	—	—	—
	390,206	188,380	287,432	103,322	63,084	317,464	8,235	—	1,358,123
Commercial construction									
Pass	15,094	47,478	44	—	—	—	25,873	—	88,489
Special Mention	—	—	—	—	—	—	—	—	—
Substandard	—	—	—	—	—	—	—	—	—
Doubtful	—	—	—	—	—	—	—	—	—
	15,094	47,478	44	—	—	—	25,873	—	88,489
Commercial									
Pass	239,852	185,013	85,220	68,161	46,142	53,192	60,871	13,964	752,415
Special Mention	—	—	—	2,374	—	645	9,005	8	12,032
Substandard	3,322	2,305	401	1,304	1,346	3,849	1,664	1,053	15,244
Doubtful	—	—	—	—	—	—	—	—	—
	243,174	187,318	85,621	71,839	47,488	57,686	71,540	15,025	779,691
Total loans	$1,296,473	$1,220,751	$ 808,953	$ 296,592	$ 164,815	$1,077,705	$1,077,634	$ 62,098	$ 6,005,021

Revolving loans converted to term loans during 2023 in the commercial, home equity line of credit and consumer portfolios were $2.8 million, $26.4 million and $1.1 million, respectively.

The credit risk profile based on payment activity for loans was as follows:

(in thousands)	30-59 days past due	60-89 days past due	Greater than 90 days	Total past due	Current	Total financing receivables	Recorded investment> 90 days and accruing
December 31, 2023							
Real estate:							
Residential 1-4 family	$ 4,501	$ 5,165	$ 8,670	$ 18,336	$ 2,576,826	$ 2,595,162	$ 425
Commercial real estate	—	—	11,048	11,048	1,362,990	1,374,038	—
Home equity line of credit	1,481	597	1,522	3,600	1,013,607	1,017,207	—
Residential land	—	675	—	675	17,689	18,364	—
Commercial construction	—	—	—	—	172,405	172,405	—
Residential construction	—	—	—	—	17,843	17,843	—
Commercial	163	135	244	542	742,761	743,303	—
Consumer	2,567	1,576	1,589	5,732	266,524	272,256	—
Total loans	$ 8,712	$ 8,148	$ 23,073	$ 39,933	$ 6,170,645	$ 6,210,578	$ 425
December 31, 2022							
Real estate:							
Residential 1-4 family	$ 1,546	$ 358	$ 3,205	$ 5,109	$ 2,474,528	$ 2,479,637	$ —
Commercial real estate	508	217	—	725	1,357,398	1,358,123	—
Home equity line of credit	1,312	435	1,213	2,960	999,945	1,002,905	—
Residential land	—	—	—	—	20,679	20,679	—
Commercial construction	—	—	—	—	88,489	88,489	—
Residential construction	—	—	—	—	20,788	20,788	—
Commercial	614	18	77	709	778,982	779,691	—
Consumer	1,979	1,315	1,129	4,423	250,286	254,709	—
Total loans	$ 5,959	$ 2,343	$ 5,624	$ 13,926	$ 5,991,095	$ 6,005,021	$ —

The credit risk profile based on nonaccrual loans were as follows:

	December 31, 2023			December 31, 2022		
(in thousands)	With a related ACL	Without a related ACL	Total	With a related ACL	Without a related ACL	Total
Real estate:						
Residential 1-4 family	$ 7,755	$ 2,190	$ 9,945	$ 4,198	$ 2,981	$ 7,179
Commercial real estate	11,048	—	11,048	—	—	—
Home equity line of credit	2,626	1,135	3,761	3,654	1,442	5,096
Residential land	780	—	780	420	—	420
Commercial construction	—	—	—	—	—	—
Residential construction	—	—	—	—	—	—
Commercial	133	301	434	2,183	—	2,183
Consumer	2,458	—	2,458	1,588	—	1,588
Total	$ 24,800	$ 3,626	$ 28,426	$ 12,043	$ 4,423	$ 16,466

ASB did not recognize interest on nonaccrual loans for 2023, 2022 and 2021.

Modifications Made to Borrowers Experiencing Financial Difficulty. The allowance for credit losses incorporates an estimate of lifetime expected credit losses and is recorded on each asset upon origination. The starting point for the estimate of the allowance for credit losses is historical loan information, which includes losses from modifications of receivables to borrowers experiencing financial difficulty. ASB uses a probability of default/loss given default model to determine the allowance for credit losses. An assessment of whether a borrower is experiencing financial difficulty is made at the time of the modification.

Because the effect of most modifications made to borrowers experiencing financial difficulty is already included in the allowance for credit losses, a change to the allowance for credit losses is generally not recorded upon modification.

Modifications may include interest rate reductions, interest only payments for an extended period of time, protracted terms such as amortization and maturity beyond the customary length of time found in the normal marketplace, and other actions intended to minimize economic loss and to provide alternatives to foreclosure or repossession of collateral.

During 2023, no loans received a material modification based on borrower financial difficulty.

Troubled debt restructurings. Prior to January 1, 2023, a loan modification was deemed to be a TDR when the borrower was determined to be experiencing financial difficulties and ASB granted a concession it would not have otherwise considered. With the adoption of ASU No. 2022-02, accounting guidance for TDRs by creditors was eliminated. Loan refinancing and restructuring guidance was applied to determine whether a modification resulted in a new loan or a continuation of an existing loan. The disclosures below relate to TDRs for prior periods in accordance with Subtopic 310-40, Receivables-Troubled Debt Restructurings by Creditors.

When a borrower who was experiencing financial difficulty failed to make a required payment on a loan or was in imminent default, ASB took a number of steps to improve the collectability of the loan and maximize the likelihood of full repayment. At times, ASB may have modified or restructured a loan to help a distressed borrower improve its financial position to eventually be able to fully repay the loan, provided the borrower had demonstrated both the willingness and the ability to fulfill the modified terms. TDR loans were considered an alternative to foreclosure or liquidation with the goal of minimizing losses to ASB and maximizing recovery.

ASB may have considered various types of concessions in granting a TDR including maturity date extensions, extended amortization of principal, temporary deferral of principal payments, and temporary interest rate reductions. ASB rarely granted principal forgiveness in its TDR modifications. Residential loan TDR modifications generally involved interest rate reduction, extending the amortization period, or capitalizing certain delinquent amounts owed not to exceed the original loan balance. Land loan TDR modifications typically involved extending the maturity date up to three years and converting the payments from interest-only to principal and interest monthly, at the same or higher interest rate. Commercial loan TDR modifications generally involved extensions of maturity dates, extending the interest only or amortization period, and temporary deferral or reduction of principal payments. ASB generally did not reduce the interest rate on commercial loan TDR modifications. Occasionally, additional collateral and/or guaranties were obtained.

The allowance for credit losses on TDR loans that did not share risk characteristics were individually evaluated based on the present value of expected future cash flows discounted at the loan's effective original contractual rate or based on the fair value of collateral less cost to sell. The financial impact of the estimated loss was an increase to the allowance associated with the modified loan. When available information confirmed that specific loans or portions thereof are uncollectible (confirmed losses), those amounts were charged off against the allowance for credit losses.

The credit risk profile based on loans whose terms have been modified and accruing interest were as follows:

(in thousands)	December 31, 2022
Real estate:	
Residential 1-4 family	$ 8,821
Commercial real estate	9,477
Home equity line of credit	4,404
Residential land	782
Commercial construction	—
Residential construction	—
Commercial	6,596
Consumer	50
Total troubled debt restructured loans accruing interest	$ 30,130

Loan modifications that occurred during 2022 and 2021 were as follows:

(dollars in thousands)	Number of contracts	Outstanding recorded investment (as of period end)[1]	Related allowance (as of period end)
Year ended December 31, 2022			
Real estate:			
Residential 1-4 family	5	$ 1,475	$ 164
Commercial real estate	—	—	—
Home equity line of credit	—	—	—
Residential land	1	203	42
Commercial construction	—	—	—
Residential construction	—	—	—
Commercial	3	2,634	497
Consumer	—	—	—
	9	$ 4,312	$ 703
Year ended December 31, 2021			
Real estate:			
Residential 1-4 family	14	$ 8,379	$ 442
Commercial real estate	—	—	—
Home equity line of credit	—	—	—
Residential land	3	799	38
Commercial construction	—	—	—
Residential construction	—	—	—
Commercial	7	2,931	205
Consumer	—	—	—
	24	$ 12,109	$ 685

[1] The period end balances reflect all paydowns and charge-offs since the modification period. TDRs fully paid off, charged-off, or foreclosed upon by period end are not included.

Loans modified in TDRs that experienced a payment default of 90 days or more in 2022 and 2021 and for which the payment default occurred within one year of the modification, were as follows:

Years ended December 31	2022		2021	
(dollars in thousands)	Number of contracts	Recorded investment	Number of contracts	Recorded investment
Troubled debt restructurings that subsequently defaulted				
Real estate:				
Residential 1-4 family	—	$ —	1	$ 474
Commercial real estate	—	—	—	—
Home equity line of credit	—	—	—	—
Residential land	—	—	—	—
Commercial construction	—	—	—	—
Residential construction	—	—	—	—
Commercial	—	—	1	9
Consumer	—	—	—	—
	—	$ —	2	$ 483

If a loan modified in a TDR subsequently defaulted, ASB evaluated the loan for further impairment. Based on its evaluation, adjustments may be made in the allocation of the allowance or partial charge-offs may be taken to further write-down the carrying value of the loan. Commitments to lend additional funds to borrowers whose loan terms have been modified in a TDR totaled nil at December 31, 2022.

Collateral-dependent loans. A loan is considered collateral-dependent when the borrower is experiencing financial difficulty and repayment of the loan is expected to be provided substantially through the operation or sale of the collateral.

Loans considered collateral-dependent were as follows:

	December 31, 2023		December 31, 2022	
	Amortized cost	Collateral type	Amortized cost	Collateral type
(in thousands)				
Real estate:				
Residential 1-4 family	$ 2,272	Residential real estate property	$ 3,959	Residential real estate property
Commercial real estate	11,048	Commercial real estate property	—	
Home equity line of credit	1,135	Residential real estate property	1,425	Residential real estate property
Residential land	—		—	
Total real estate	14,455		5,384	
Commercial	301	Business assets	—	
Total	$ 14,756		$ 5,384	

ASB had $3.4 million and $4.2 million of consumer mortgage loans collateralized by residential real estate property that were in the process of foreclosure at December 31, 2023 and 2022, respectively.

Mortgage servicing rights (MSRs). In its mortgage banking business, ASB sells residential mortgage loans to government-sponsored entities and other parties, who may issue securities backed by pools of such loans. ASB retains no beneficial interests in these loans other than the servicing rights of certain loans sold.

ASB received $49.2 million, $136.5 million and $364.8 million of proceeds from the sale of residential mortgages in 2023, 2022, and 2021, respectively, and recognized gains on such sales of $0.9 million, $1.7 million, and $9.3 million in 2023, 2022, and 2021, respectively.

There was one repurchased mortgage loan for 2022 and no repurchased mortgage loans for 2023 and 2021. ASB believes that the current unpaid principal balance of loans sold to date represents the maximum exposure to repurchases and has established a repurchase reserve of $0.1 million as of December 31, 2023 and 2022, to estimate its probable exposure to repurchases.

Mortgage servicing fees, a component of other income, net, were $3.5 million, $3.7 million and $3.8 million for the years ended December 31, 2023, 2022, and 2021, respectively.

Changes in the carrying value of MSRs were as follows:

(in thousands)	Gross carrying amount	Accumulated amortization	Valuation allowance	Net carrying amount
December 31, 2023	$ 18,241	$ (10,072)	$ —	$ 8,169
December 31, 2022	$ 19,544	$ (10,497)	$ —	$ 9,047

Changes related to MSRs were as follows:

(in thousands)	2023	2022	2021
Mortgage servicing rights			
Balance, January 1	$ 9,047	$ 9,950	$ 10,280
Amount capitalized	423	1,130	3,404
Amortization	(1,301)	(2,033)	(3,734)
Sale of mortgage servicing rights	—	—	—
Other-than-temporary impairment	—	—	—
Carrying amount before valuation allowance, December 31	8,169	9,047	9,950
Valuation allowance for mortgage servicing rights			
Balance, January 1	—	—	260
Provision	—	—	(260)
Other-than-temporary impairment	—	—	—
Balance, December 31	—	—	—
Net carrying value of mortgage servicing rights	$ 8,169	$ 9,047	$ 9,950

The estimated aggregate amortization expenses of MSRs for 2024, 2025, 2026, 2027 and 2028 are $1.0 million, $0.9 million, $0.8 million, $0.8 million and $0.7 million, respectively.

ASB capitalizes MSRs acquired upon the sale of mortgage loans with servicing rights retained. On a monthly basis, ASB compares the net carrying value of the MSRs to its fair value to determine if there are any changes to the valuation allowance and/or other-than-temporary impairment for the MSRs.

ASB uses a present value cash flow model to estimate the fair value of MSRs. Impairment is recognized through a valuation allowance for each stratum when the carrying amount exceeds fair value, with any associated provision recorded as a component of loan servicing fees included in “Revenues - bank” in the consolidated statements of income. A direct write-down is recorded when the recoverability of the valuation allowance is deemed to be unrecoverable.

Key assumptions used in estimating the fair value of ASB’s MSRs used in the impairment analysis were as follows:

December 31	2023	2022
(dollars in thousands)		
Unpaid principal balance	$ 1,402,736	$ 1,451,322
Weighted average note rate	3.47%	3.38%
Weighted average discount rate	10.00%	10.00%
Weighted average prepayment speed	5.71%	6.56%

The sensitivity analysis of fair value of MSRs to hypothetical adverse changes of 25 and 50 basis points in certain key assumptions was as follows:

December 31	2023	2022
(in thousands)		
Prepayment rate:		
25 basis points adverse rate change	$ (90)	$ (92)
50 basis points adverse rate change	(204)	(214)
Discount rate:		
25 basis points adverse rate change	(203)	(182)
50 basis points adverse rate change	(402)	(361)

The effect of a variation in certain assumptions on fair value is calculated without changing any other assumptions. This analysis typically cannot be extrapolated because the relationship of a change in one key assumption to the changes in the fair value of MSRs typically is not linear.

Deposit liabilities. The summarized components of deposit liabilities were as follows:

December 31	2023		2022	
(dollars in thousands)	**Weighted-average stated rate**	**Amount**	**Weighted-average stated rate**	**Amount**
Savings	0.15%	$ 2,765,175	0.03%	$ 3,198,329
Checking				
Interest-bearing	0.85	1,427,225	0.17	1,359,519
Noninterest-bearing	—	1,383,197	—	1,453,937
Commercial checking	—	1,216,565	—	1,357,140
Money market	3.52	289,709	0.82	189,053
Time certificates	3.99	1,063,907	2.39	611,718
	0.85%	$ 8,145,778	0.24%	$ 8,169,696

As of December 31, 2023 and 2022, time certificates of $250,000 or more totaled $348.2 million and $346.9 million, respectively.

The approximate scheduled maturities of time certificates outstanding at December 31, 2023 were as follows:

(in thousands)	
2024	$ 898,996
2025	136,462
2026	14,405
2027	6,158
2028	5,854
Thereafter	2,032
	$ 1,063,907

Overdrawn deposit accounts are classified as loans and totaled $3.9 million and $1.5 million at December 31, 2023 and 2022, respectively.

Interest expense on deposit liabilities by type of deposit was as follows:

Years ended December 31	2023	2022	2021
(in thousands)			
Time certificates	$ 31,366	$ 5,372	$ 3,805
Savings	2,367	860	802
Money market	8,669	330	132
Interest-bearing checking	6,503	765	242
	$ 48,905	$ 7,327	$ 4,981

Other borrowings.

Securities sold under agreements to repurchase. Securities sold under agreements to repurchase are accounted for as financing transactions and the obligations to repurchase these securities are recorded as liabilities in the consolidated balance sheets. ASB pledges investment securities as collateral for securities sold under agreements to repurchase. All such agreements are subject to master netting arrangements, which provide for conditional right of set-off in case of default by either party; however, ASB presents securities sold under agreements to repurchase on a gross basis in the balance sheet. The following tables present information about the securities sold under agreements to repurchase, including the related collateral received from or pledged to counterparties:

(in millions)	Gross amount of recognized liabilities	Gross amount offset in the Balance Sheets	Net amount of liabilities presented in the Balance Sheets
Repurchase agreements			
December 31, 2023	$ —	$ —	$ —
December 31, 2022	281	—	281

	Gross amount not offset in the Balance Sheets		
(in millions)	Net amount of liabilities presented in the Balance Sheets	Financial instruments	Cash collateral pledged
Commercial account holders			
December 31, 2023	$ —	$ —	$ —
December 31, 2022	281	327	—

The securities underlying the agreements to repurchase are book-entry securities and were delivered by appropriate entry into the counterparties' accounts or into segregated tri-party custodial accounts at the FHLB. The securities underlying the agreements to repurchase continue to be reflected in ASB's asset accounts. The counterparties or tri-parties may determine that additional collateral is required based on movements in the fair value of the collateral. Typically, a five percent discount is taken from the fair value of the investment securities to determine the value of the collateral pledged for the repurchase agreements.

Information concerning securities sold under agreements to repurchase, which provided for the repurchase of identical securities, was as follows:

(dollars in thousands)	2023	2022	2021
Amount outstanding as of December 31	$ —	$ 281,120	$ 88,305
Average amount outstanding during the year	62,441	127,170	88,405
Maximum amount outstanding as of any month-end	148,060	284,040	129,665
Weighted-average interest rate as of December 31	—%	3.02%	0.02%
Weighted-average interest rate during the year	3.48%	0.99%	0.02%
Weighted-average remaining days to maturity as of December 31	0	1	1

Securities sold under agreements to repurchase were summarized as follows:

December 31	2023			2022		
Maturity	Repurchase liability	Weighted-average interest rate	Collateralized by mortgage-backed securities and federal agency obligations at fair value plus accrued interest	Repurchase liability	Weighted-average interest rate	Collateralized by mortgage-backed securities and federal agency obligations at fair value plus accrued interest
(dollars in thousands)						
Overnight	$ —	—%	$ —	$ 281,120	3.02%	$ 326,841
1 to 29 days	—	—%	—	—	—%	—
30 to 90 days	—	—%	—	—	—%	—
Over 90 days	—	—%	—	—	—%	—
	$ —	—%	$ —	$ 281,120	3.02%	$ 326,841

Advances from Federal Home Loan Bank. Outstanding FHLB advances were $200 million and $414 million as of December 31, 2023 and 2022, respectively. ASB and the FHLB are parties to an Advances, Pledge and Security Agreement (Advances Agreement), which applies to currently outstanding and future advances, and governs the terms and conditions under which ASB borrows and the FHLB makes loans or advances from time to time. Under the Advances Agreement, ASB agrees to abide by the FHLB's credit policies, and makes certain warranties and representations to the FHLB. Upon the occurrence of and during the continuation of an "Event of Default" (which term includes any event of nonpayment of interest or principal of any advance when due or failure to perform any promise or obligation under the Advances Agreement or other credit arrangements between the parties), the FHLB may, at its option, declare all indebtedness and accrued interest thereon, including any prepayment fees or charges, to be immediately due and payable. Advances from the FHLB are collateralized by loans, investment securities and stock in the FHLB. As of December 31, 2023 and 2022, ASB's available FHLB borrowing capacity was $1.9 billion, and $1.6 billion, respectively.

ASB is required to obtain and hold a specific number of shares of capital stock of the FHLB. ASB was in compliance with all Advances Agreement requirements as of December 31, 2023 and 2022.

Borrowings from Federal Reserve Bank. In March 2023, the Federal Reserve Bank created the Bank Term Funding Program (BTFP) to provide an additional source of liquidity to eligible depository institutions. The BTFP offers loans up to one year in length that can be prepaid without penalty. The amount that can be borrowed under the BTFP is based upon the par value of securities pledged as collateral to the program. Advances can be requested under the BTFP until March 11, 2024. At December 31, 2023, ASB had $550.0 million of BTFP borrowings at a weighted average fixed rate of 4.37%, collateralized by investment securities with a book value of $804.3 million, maturing in March 2024.

Common stock equity. ASB is regulated and supervised by the OCC. Failure to meet minimum capital requirements can initiate certain mandatory and possibly additional discretionary actions by regulators that, if undertaken, could have a direct material effect on ASB's financial statements. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, ASB must meet specific capital guidelines that involve quantitative measures of ASB's assets, liabilities, and certain off-balance sheet items as calculated under regulatory accounting practices. The capital amounts and classification are also subject to qualitative judgments by the regulators about components, risk weightings, and other factors.

The prompt corrective action provisions impose certain restrictions on institutions that are undercapitalized. The restrictions imposed become increasingly more severe as an institution's capital category declines from "undercapitalized" to "critically undercapitalized." The regulators have substantial discretion in the corrective actions they might direct and could include restrictions on dividends and other distributions that ASB may make to ASB Hawaii and the requirement that ASB develop and implement a plan to restore its capital. In 1988, HEI agreed with the OTS predecessor regulatory agency at the time, to contribute additional capital to ASB up to a maximum aggregate amount of approximately $65.1 million (Capital Maintenance Agreement). As of December 31, 2023, as a result of capital contributions in prior years, HEI's maximum obligation to contribute additional capital under the Capital Maintenance Agreement has been reduced to approximately $28.3 million. In addition to OCC oversight, federal law and Federal Reserve Board policy require that HEI, as a savings and loan holding company, serve as a source of financial and managerial strength for any FDIC-insured depository institution that it controls. Accordingly, if ASB were to be in financial distress or to otherwise be viewed by the regulators as in unsatisfactory condition, HEI could be required to provide additional capital or liquidity support or take other action, in support of ASB.

To be categorized as "well capitalized," ASB must maintain minimum total capital, Tier 1 capital, and Tier 1 leverage ratios as set forth in the table below. As of December 31, 2023, and 2022 ASB was in compliance with the minimum capital requirements under OCC regulations, and was categorized as "well capitalized" under the regulatory framework for prompt corrective action. There are no conditions or events that management believes have changed the institution's category under the capital guidelines.

The tables below set forth actual and minimum required capital amounts and ratios:

	Actual		Minimum required		Required to be well capitalized	
(dollars in thousands)	Capital	Ratio	Capital	Ratio	Capital	Ratio
December 31, 2023						
Tier 1 leverage	$ 759,921	7.68%	$ 395,812	4.00%	$ 494,765	5.00%
Common equity tier 1	759,921	12.27%	278,681	4.50%	402,539	6.50%
Tier 1 capital	759,921	12.27%	371,575	6.00%	495,433	8.00%
Total capital	828,901	13.38%	495,433	8.00%	619,291	10.00%
December 31, 2022						
Tier 1 leverage	750,851	7.78%	386,265	4.00%	482,831	5.00%
Common equity tier 1	750,851	12.15%	278,076	4.50%	401,665	6.50%
Tier 1 capital	750,851	12.15%	370,767	6.00%	494,356	8.00%
Total capital	811,729	13.14%	494,356	8.00%	617,946	10.00%

In 2023, ASB paid cash dividends of $39.0 million to HEI, compared to cash dividends of $42.0 million in 2022. The FRB and OCC approved the dividends.

Related-party transactions. HEI charged ASB $2.3 million, $1.9 million and $2.1 million for general management and administrative services in 2023, 2022 and 2021, respectively. The amounts charged by HEI for services performed by HEI employees to its subsidiaries are allocated primarily on the basis of time expended in providing such services. All amounts charged to ASB were settled as a capital contribution by HEI to ASB.

Derivative financial instruments. ASB enters into interest rate lock commitments (IRLCs) with borrowers, and forward commitments to sell loans or to-be-announced mortgage-backed securities to investors to hedge against the inherent interest rate and pricing risks associated with selling loans.

ASB enters into IRLCs for residential mortgage loans, which commit ASB to lend funds to a potential borrower at a specific interest rate and within a specified period of time. IRLCs that relate to the origination of mortgage loans that will be held for sale are considered derivative financial instruments under applicable accounting guidance. Outstanding IRLCs expose ASB to the risk that the price of the mortgage loans underlying the commitments may decline due to increases in mortgage interest rates from inception of the rate lock to the funding of the loan. The IRLCs are free-standing derivatives which are carried at fair value with changes recorded in mortgage banking income.

ASB enters into forward commitments to hedge the interest rate risk for rate locked mortgage applications in process and closed mortgage loans held for sale. These commitments are primarily forward sales of to-be-announced mortgage backed securities. Generally, when mortgage loans are closed, the forward commitment is liquidated and replaced with a mandatory delivery forward sale of the mortgage to a secondary market investor. In some cases, a best-efforts forward sale agreement is utilized as the forward commitment. These commitments are free-standing derivatives which are carried at fair value with changes recorded in mortgage banking income.

Changes in the fair value of IRLCs and forward commitments subsequent to inception are based on changes in the fair value of the underlying loan resulting from the fulfillment of the commitment and changes in the probability that the loan will fund within the terms of the commitment, which is affected primarily by changes in interest rates and the passage of time.

The notional amount and fair value of ASB's derivative financial instruments were as follows:

December 31	2023		2022	
(in thousands)	Notional amount	Fair value	Notional amount	Fair value
Interest rate lock commitments	$ 6,246	$ 86	$ 1,720	$ 9
Forward commitments	5,500	(18)	1,500	18

ASB's derivative financial instruments, their fair values, and balance sheet location were as follows:

Derivative Financial Instruments Not Designated as Hedging Instruments [1]

December 31	2023		2022	
(in thousands)	Asset derivatives	Liability derivatives	Asset derivatives	Liability derivatives
Interest rate lock commitments	$ 86	$ —	$ 9	$ —
Forward commitments	—	18	18	—
	$ 86	$ 18	$ 27	$ —

[1] Asset derivatives are included in other assets and liability derivatives are included in other liabilities in the balance sheets.

The following table presents ASB's derivative financial instruments and the amount and location of the net gains or losses recognized in ASB's statements of income:

Derivative Financial Instruments Not Designated as Hedging Instruments	Location of net gains (losses) recognized in	Years ended December 31		
(in thousands)	the Statements of Income	2023	2022	2021
Interest rate lock commitments	Mortgage banking income	$ 77	$ (629)	$ (3,898)
Forward commitments	Mortgage banking income	(36)	29	489
		$ 41	$ (600)	$ (3,409)

Commitments. Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the commitments. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since certain commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. ASB minimizes its exposure to loss under these commitments by requiring that customers meet certain conditions prior to disbursing funds. The amount of collateral, if any, is based on a credit evaluation of the borrower and may include residential real estate, accounts receivable, inventory and property, plant and equipment.

Letters of credit are conditional commitments issued by ASB to guarantee payment and performance of a customer to a third party. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities to customers. ASB holds collateral supporting those commitments for which collateral is deemed necessary.

The following is a summary of outstanding off-balance sheet arrangements:

December 31	2023	2022
(in thousands)		
Unfunded commitments to extend credit:		
Home equity line of credit	$ 1,141,891	$ 1,264,320
Commercial and commercial real estate	602,973	692,989
Consumer	67,229	85,768
Residential 1-4 family	25,037	20,546
Commercial and financial standby letters of credit	9,359	15,521
Total	$ 1,846,489	$ 2,079,144

Federal Deposit Insurance Corporation assessment. The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) raised the minimum reserve ratio for the Deposit Insurance Fund (DIF) to 1.35 percent. As of June 30, 2020, the Federal Deposit Insurance Corporation (FDIC) DIF reserve ratio fell to 1.30%, below the statutory minimum of 1.35%. The FDIC, as required under the Federal Deposit Insurance Act, established a plan on September 15, 2020 to restore the DIF reserve ratio to meet or exceed the statutory minimum of 1.35% within eight years. On October 18, 2022, the FDIC adopted an amended restoration plan to increase the likelihood that the reserve ratio would be restored to at least 1.35% by September 30, 2028. The FDIC's amended restoration plan increases the initial base deposit insurance assessment rate schedules uniformly by 2 basis points, beginning in 2023. For the years ended December 31, 2023, 2022 and 2021 ASB's FDIC insurance expenses were $6.2 million, $3.6 million and $3.2 million, respectively.

Note 6 · Short-term borrowings

Commercial paper and bank term loan. As of December 31, 2023 and 2022, HEI had nil and $50 million of commercial paper outstanding, respectively. The weighted-average interest rate of HEI's outstanding commercial paper as of December 31, 2022 was 5.19%.

As of December 31, 2023 and 2022, Hawaiian Electric had nil and $88 million commercial paper outstanding, respectively. The weighted-average interest rate of Hawaiian Electric's outstanding commercial paper as of December 31, 2022 was 4.8%.

At both December 31, 2023 and 2022, HEI had five letters of credit outstanding in the aggregate amount of $8 million, on behalf of Mauo and Hamakua Energy.

HEI term loan. On October 20, 2022, HEI entered into a term loan facility in the aggregate principal amount of $100 million. On December 28, 2022, HEI drew $35 million on the term loan and on March 31, 2023, HEI drew the remaining $65 million at an initial interest rate of 5.81% for an initial one month interest period. On May 31, 2023, HEI fully repaid the term loan facility at which time it was terminated. Borrowings under the facility bore interest at Term Secured Overnight Financing Rate (SOFR), as defined in the agreement, plus an applicable margin and a SOFR spread adjustment. The term loan facility contained certain restrictive financial covenants that were substantially the same as the financial covenants contained in the HEI credit facility.

Credit agreements. On May 14, 2021, HEI and Hawaiian Electric each entered into a separate agreement with a syndicate of nine financial institutions (the HEI Facility and Hawaiian Electric Facility, respectively, and together, the Credit Facilities) to amend and restate their respective previously existing revolving unsecured credit agreements. The $175 million HEI Facility's initial termination date was May 14, 2026. The $200 million Hawaiian Electric Facility's initial termination date was May 13, 2022, but on February 18, 2022, the PUC approved Hawaiian Electric's request to extend the term of the $200 million Hawaiian Electric Facility to May 14, 2026. In addition to extending the term, Hawaiian Electric also received PUC approval to exercise its options of two one-year extensions of the commitment termination date and to increase its aggregate revolving commitment amount from $200 million to $275 million, should there be a need.

On April 21, 2023, HEI and Hawaiian Electric executed Amendment No. 1 to the Credit Facilities (Amendment). The Amendment was executed to reflect the transition from the London Inter-Bank Offered Rate (LIBOR) to the Term Secured Overnight Financing Rate (SOFR) as the benchmark interest rate for non-Alternate Base Rate (ABR) Loans under the Credit Facilities.

On May 14, 2023, HEI and Hawaiian Electric exercised their first of two, one-year extensions to the commitment termination date with eight of the nine financial institutions to extend the Credit Facilities to May 14, 2027. The committed capacities under the HEI Facility and Hawaiian Electric Facility are $175 million and $200 million, respectively, through May 14, 2026, and step down to approximately $157 million and $180 million, respectively, through May 14, 2027 (see Note 7).

After multiple downgrades of the Companies' credit ratings to ratings below investment grade, by Fitch, Moody's and S&P due to the Maui windstorm and wildfires, on August 15, 2023, HEI made an initial $2.5 million draw on its $175 million existing revolving credit facility to repay maturing commercial paper. By August 23, 2023, HEI drew its remaining and Hawaiian Electric drew its full committed capacity on their respective existing revolving credit facilities, totaling $175 million and $200 million, respectively. The draws were made to provide access to liquidity and support the Company's restoration efforts on Maui. The cash proceeds were primarily invested in highly liquid short-term investments, were used to repay $100 million of Hawaiian Electric's long-term debt that matured on November 1, 2023, and used for general corporate purposes.

None of the facilities are collateralized.

The Credit Facilities were maintained to support each company's respective short-term commercial paper program, and were drawn in August 2023 to meet each company's respective working capital needs and general corporate purposes.

Under the Credit Facilities, draws generally bear interest, based on each company's respective current long-term credit ratings, at the "Adjusted Term SOFR Rate," as defined in the Credit Facilities, plus 175.0 basis points for HEI and Hawaiian Electric, and incur annual fees on undrawn commitments, excluding swingline borrowings, at the rate of 30.0 basis points for HEI and Hawaiian Electric.

Additionally, the Credit Facilities contain provisions for pricing adjustments in the event of a long-term ratings change based on the respective Facility's ratings-based pricing grid, which includes the ratings by Fitch, Moody's and S&P. The Credit

Facilities do not contain clauses that would affect access to the Credit Facilities by reason of a ratings downgrade, nor do they have broad "material adverse change" clauses. In addition, the Credit Facilities contain provisions for potential annual pricing adjustments to the Term Benchmark or Alternate Base Rate margin on draws and fees on undrawn commitments of up to +/-5 basis points and +/-1 basis point, respectively, based on performance against certain sustainability-linked metrics. The sustainability-linked metrics include achievement of renewable portfolio standards in excess of statutory requirements and increasing cumulative penetration of installed MWs of photovoltaic systems on residential rooftops.

The Credit Facilities also include updated terms and conditions customary for facilities of this type and contain customary conditions that must be met in order to draw on them, including compliance with covenants (such as covenants preventing HEI's and Hawaiian Electric's respective subsidiaries from entering into agreements that restrict the ability of such subsidiaries to pay dividends to, or to repay borrowings from, HEI or Hawaiian Electric, as applicable; and a covenant in Hawaiian Electric's facility restricting Hawaiian Electric's ability, as well as the ability of any of its subsidiaries, to guarantee additional indebtedness of the subsidiaries if such additional debt would cause the subsidiary's "Consolidated Subsidiary Funded Debt to Capitalization Ratio" (as defined in the Hawaiian Electric Facility) to exceed 65%).

Under the HEI Facility, it is an event of default if HEI fails to maintain an unconsolidated "Capitalization Ratio" (funded debt) (as defined in the HEI Facility) of 50% or less or if HEI no longer owns Hawaiian Electric or ASB. Under the Hawaiian Electric Facility, it is an event of default if Hawaiian Electric fails to maintain a "Consolidated Capitalization Ratio" (equity) (as defined in the Hawaiian Electric Facility) of at least 35%, or if Hawaiian Electric is no longer owned by HEI.

Note 7 · Long-term debt

December 31	2023	2022
(dollars in thousands)		
Long-term debt of Utilities, net of unamortized debt issuance costs [1]	$ 1,934,277	$ 1,684,816
HEI 3.99% senior notes, paid in 2023	—	50,000
HEI 4.58% senior notes, due 2025	50,000	50,000
HEI 4.72% senior notes, due 2028	100,000	100,000
HEI 2.82% senior notes, due 2028	24,000	24,000
HEI 2.48% senior notes, due 2028	30,000	30,000
HEI 6.04% senior notes, due 2028	39,000	—
HEI 2.98% senior notes, due 2030	50,000	50,000
HEI 3.15% senior notes, due 2031	51,000	51,000
HEI 2.78% senior notes, due 2031	25,000	25,000
HEI 2.98% senior notes, due 2032	30,000	30,000
HEI 5.43% senior notes, due 2032	75,000	75,000
HEI 6.10% senior notes, due 2033	61,000	—
HEI 5.43% senior notes, due 2034	35,000	35,000
HEI 3.74% senior notes, due 2051	20,000	20,000
HEI 3.94% senior notes, due 2052	20,000	20,000
Hamakua Energy 4.02% non-recourse notes, due 2030[2]	44,855	49,048
Mauo SOFR + 1.475% loan, due 2024[3]	5,384	11,060
Mauo 4.91% non-recourse term loan, due 2034 to 2035[2]	16,962	17,692
Ka‘ie‘ie Waho 2.79% non-recourse loan, due 2031[2]	9,727	10,936
Mahipapa 1.90% non-recourse loan, due 2034 to 2036[2]	53,743	58,869
Mahipapa 5.625% non-recourse loan, due 2027[2]	578	724
HEI revolving credit facility SOFR + 1.80%, due 2026 to 2027[4]	175,000	—
Less unamortized debt issuance costs and debt discount	(8,097)	(8,165)
	$ 2,842,429	$ 2,384,980

1 See components of “Total long-term debt” and unamortized debt issuance costs in Hawaiian Electric and subsidiaries’ Consolidated Statements of Capitalization.

2 Secured by real and personal property of the respective entity, including various land parcels, a 60MW combined cycle facility, photovoltaic and battery storage infrastructure, and a biomass plant. The aggregate net book value of the collateralized property, plant & equipment is approximately $187 million as of December 31, 2023.

3 In December 2021, the loan was amended to allow advances through October 5, 2022, in the maximum aggregate principal amount of up to $50.5 million. As of July 1, 2023, LIBOR was replaced by the term SOFR plus the applicable margin of 1.375%, plus an additional 0.10% replacement rate adjustment. On February 8, 2024, the outstanding loan balance was fully repaid and the loan was terminated.

4 As of December 31, 2023, the interest rate is based on term SOFR plus the applicable margin of 1.75%, reduced by a 0.05% sustainability margin adjustment, plus an additional 0.10% spread adjustment; the weighted-average interest rate was 7.19%.

As of December 31, 2023, the aggregate principal payments required on the Company’s long-term debt for 2024 through 2028 are $18 million in 2024, $109 million in 2025, $174 million in 2026, $449 million in 2027 and $273 million in 2028. As of December 31, 2023, the aggregate payments of principal required on the Utilities’ long-term debt for 2024 through 2028 are nil in 2024, $47 million in 2025, $145 million in 2026, $280 million in 2027 and $68 million in 2028.

The HEI term loans and senior notes contain customary representation and warranties, affirmative and negative covenants and events of default (the occurrence of which may result in some or all of the notes then outstanding becoming immediately due and payable). The HEI term loans and senior notes also contain provisions requiring the maintenance by HEI of certain financial ratios generally consistent with those in HEI’s revolving unsecured credit facility, as amended. Upon a change of control or certain dispositions of assets (as defined in the note purchase agreements of the senior notes), HEI is required to offer to prepay the senior notes.

The Utilities' senior notes contain customary representations and warranties, affirmative and negative covenants, and events of default (the occurrence of which may result in some or all of the notes of each and all of the utilities then outstanding becoming immediately due and payable) and provisions requiring the maintenance by Hawaiian Electric, and each of Hawaii Electric Light and Maui Electric, of certain financial ratios generally consistent with those in Hawaiian Electric's existing, amended revolving unsecured credit agreement.

Changes in long-term debt. As of December 31, 2023, HEI and Hawaiian Electric were in compliance with all applicable financial covenants.

HEI and Hawaiian Electric's Credit Facilities. See Note 6 for more information.

HEI private placement. On March 16, 2023, HEI entered into a note purchase agreement (HEI NPA) under which HEI has authorized the issue and sale of $100 million of unsecured senior notes that were drawn on May 30, 2023. The proceeds of the notes were used to repay the $100 million term loan facility on May 31, 2023. The terms of the notes are as follows:

	HEI Series 2023A	HEI Series 2023B
Aggregate principal amount	$39 million	$61 million
Fixed coupon interest rate	6.04%	6.10%
Maturity date	6/15/2028	6/15/2033

Interest on the notes is paid semiannually on June 15th and December 15th. The HEI NPA contains certain restrictive financial covenants that are substantially the same as the financial covenants contained in the HEI Facility, as amended. The HEI notes may be prepaid in whole or in part at any time at the prepayment price of the principal amount, together with interest accrued to the date of prepayment plus a "Make-Whole Amount," as defined in the agreements.

Utilities private placement. On January 10, 2023, the Utilities executed, through a private placement pursuant to separate Note Purchase Agreements (the NPAs), the following unsecured senior notes bearing taxable interest (2023 Notes). The 2023 Notes had a delayed draw feature and the Utilities drew down all the proceeds on February 9, 2023.

	Series 2023A	Series 2023B	Series 2023C
Aggregate principal amount	$90 million	$40 million	$20 million
Fixed coupon interest rate			
Hawaiian Electric	6.11%	6.25%	6.70%
Hawaii Electric Light	6.25%	—	—
Maui Electric	6.25%	—	—
Maturity date			
Hawaiian Electric	2/9/2030	2/9/2033	2/9/2053
Hawaii Electric Light	2/9/2033	—	—
Maui Electric	2/9/2033	—	—
Principal amount by company			
Hawaiian Electric	$40 million	$40 million	$20 million
Hawaii Electric Light	$25 million	—	—
Maui Electric	$25 million	—	—

The 2023 Notes include substantially the same financial covenants and customary conditions as the Hawaiian Electric Facility. Hawaiian Electric is also a party as guarantor under the NPAs entered into by Hawaii Electric Light and Maui Electric. The Utilities did not obtain any of the proceeds at execution and instead drew down all the proceeds on February 9, 2023. The proceeds were used to finance their respective capital expenditures, repay short-term debt used to finance or refinance capital expenditures and/or reimburse funds used for the payment of capital expenditures. The 2023 Notes may be prepaid in whole or in part at any time at the prepayment price of the principal amount plus a "Make-Whole Amount" as defined in the NPAs.

Note 8 · Shareholders' equity

Reserved shares. As of December 31, 2023, HEI had reserved a total of 13.9 million shares of common stock for future issuance under the HEI Dividend Reinvestment and Stock Purchase Plan (DRIP), the Hawaiian Electric Industries Retirement Savings Plan (HEIRSP), the ASB 401(k) Plan, the HEI 2011 Nonemployee Director Stock Plan, and the 2010 Equity and Incentive Plan, as amended.

Accumulated other comprehensive income/(loss). Changes in the balances of each component of AOCI were as follows:

	HEI Consolidated				Hawaiian Electric Consolidated
(in thousands)	Net unrealized gains (losses) on securities	Unrealized gains (losses) on derivatives	Retirement benefit plans	AOCI	AOCI-Retirement benefit plans
Balance, December 31, 2020	$ 19,986	$ (3,363)	$ (17,887)	$ (1,264)	$ (2,919)
Current period other comprehensive income (loss) and reclassifications, net of taxes	(52,023)	(275)	1,029	(51,269)	(361)
Balance, December 31, 2021	(32,037)	(3,638)	(16,858)	(52,533)	(3,280)
Current period other comprehensive income (loss) and reclassifications, net of taxes	(296,867)	5,629	7,743	(283,495)	6,141
Balance, December 31, 2022	(328,904)	1,991	(9,115)	(336,028)	2,861
Current period other comprehensive income (loss) and reclassifications, net of taxes	45,941	(353)	1,090	46,678	(12)
Balance, December 31, 2023	$ (282,963)	$ 1,638	$ (8,025)	$ (289,350)	$ 2,849

Reclassifications out of AOCI were as follows:

	Amount reclassified from AOCI			
Years ended December 31	2023	2022	2021	Affected line item in the Statement of Income/Balance Sheet
(in thousands)				
HEI consolidated				
Available-for sale investment securities:				
Net realized losses (gains) on securities included in net income	$ 10,954	$ —	$ (387)	Loss (gain) on sale of investment securities, net and equity-method investment
Amortization of unrealized holding losses on held-to-maturity securities	14,398	3,993	—	Bank revenues
Net realized losses (gains) on derivatives qualifying as cash flow hedges	(186)	172	37	Interest expense
Retirement benefit plans:				
Amortization of prior service credit and net losses (gains) recognized during the period in net periodic benefit cost	(1,560)	19,659	19,253	See Note 11 for additional details
Impact of D&Os of the PUC included in regulatory assets	(8,204)	(199,936)	(171,345)	See Note 11 for additional details
Total reclassifications	$ 15,402	$ (176,112)	$ (152,442)	
Hawaiian Electric consolidated				
Retirement benefit plans:				
Amortization of prior service credit and net losses (gains) recognized during the period in net periodic benefit cost	$ (1,983)	$ 18,884	$ 19,461	See Note 11 for additional details
Impact of D&Os of the PUC included in regulatory assets	(8,204)	(199,936)	(171,345)	See Note 11 for additional details
Total reclassifications	$ (10,187)	$ (181,052)	$ (151,884)	

Note 9 · Leases

The Company leases certain real estate and equipment for various terms under long-term lease agreements. The agreements expire at various dates through 2054 and provide for renewal options up to 10 years. The periods associated with the renewal options are excluded for the purpose of determining the lease term unless the exercise of the renewal option is reasonably certain. In the normal course of business, it is expected that many of these agreements will be replaced by similar agreements. Certain real estate leases require the Company to pay for operating expenses such as common area maintenance, real estate taxes and insurance, which are recognized as variable lease expense when incurred and are not included in the measurement of the lease liability. The Company elected the short-term lease recognition exemption for all of its leases that qualify, and accordingly, does not recognize lease liabilities and ROU assets for all leases that have lease terms that are 12 months or less. The amounts related to short-term leases are not material. The Company elected the practical expedient to not separate lease and non-lease components for its real estate and equipment and fossil fuel and renewable energy PPAs and to separate lease components from non-lease components for renewable energy plus battery storage PPAs.

The Utilities contract with independent power producers to supply energy under long-term power purchase agreements. Certain PPAs are treated as operating leases under the lease standard because the Company elected the practical expedient package under which prior conclusions about lease identification were not reassessed. The fixed capacity payments under the PPAs are included in the lease liability, while the variable lease payments (e.g., payments based on kWh) are excluded from the lease liability. Several as-available PPAs have variable-only payment terms based on production. For PPAs with no minimum lease payments, the Utilities do not recognize any lease liabilities or ROU assets, and the related costs are reported as variable lease costs.

The Utilities' lease payments for each operating lease agreement were discounted using its estimated unsecured borrowing rates for the appropriate term, reduced for the estimated impact of collateral, which is a reduction of approximately 20 basis points. ASB's lease payments for each operating lease agreement were discounted using Federal Home Loan Bank (FHLB) of Des Moines fixed rate advance rates, which are collateralized, for the appropriate term. The FHLB is ASB's primary wholesale funding source and can provide collateralized borrowing rates for various terms starting at overnight borrowings to 30-year borrowing terms.

In August 2021, the Utilities entered into an agreement with an unrelated party for exclusive use of a barge and tug to transport fuels between islands, commencing in January 2022. The contract is an operating lease with a term of five years with an option to extend the term for an additional five years. Annual base rent expense is approximately $6.4 million and the operating lease liability recorded upon commencement was $32 million. In addition to the annual base payment, there are additional payments for operating expenses, such as inspection expense, wharfage and pipeline tolls, which are recognized as variable lease cost when incurred.

The Utilities account for the battery portion of renewable energy plus storage and energy storage PPAs as leases at their commencement dates. As of December 31, 2023, the Utilities recognized additional finance lease liabilities with corresponding right-of-use assets of $293.8 million, including Waiawa Solar, AES Waikoloa Solar and Kapolei Energy Storage project that began commercial operations during the year. The timing of the Utilities' recognition of the expense conforms to ratemaking treatment for the Utilities' recovery of the cost of electricity and is included in purchased power for the interest and amortization of financing leases related to PPAs. Any material differences between expense recognition and timing of payments are deferred as a regulatory asset or liability in order to match what is being recovered for ratemaking purposes.

Amounts related to the Company's total lease cost and cash flows arising from lease transactions are as follows:

	HEI consolidated			Hawaiian Electric consolidated		
Year ended December 31, 2023	**Other leases**	**PPAs classified as leases**	**Total**	**Other leases**	**PPAs classified as leases**	**Total**
(dollars in thousands)						
Operating lease cost	$ 21,882	$ 4,071	$ 25,953	$ 15,947	$ 4,071	$ 20,018
Variable lease cost	8,491	202,556	211,047	5,605	202,556	208,161
Sublease income	(3,031)	—	(3,031)	(3,031)	—	(3,031)
Total operating lease cost	$ 27,342	$ 206,627	$ 233,969	$ 18,521	$ 206,627	$ 225,148
Finance lease costs:						
Amortization of right-of-use assets	$ 390	$ 5,591	$ 5,981	$ —	$ 5,591	$ 5,591
Interest on lease liabilities	32	6,350	6,382	—	6,350	6,350
Total finance lease cost	$ 422	$ 11,941	$ 12,363	$ —	$ 11,941	$ 11,941
Other information						
Cash paid for amounts included in the measurement of lease liabilities:						
Operating cash flows from operating leases	$ 23,076	$ 4,071	$ 27,147	$ 17,729	$ 4,071	$ 21,800
Operating cash flows from financing leases	$ 32	$ 6,350	$ 6,382	$ —	$ 6,350	$ 6,350
Financing cash flows from financing leases	$ 391	$ 3,128	$ 3,519	$ —	$ 3,128	$ 3,128
Weighted-average remaining lease term (in years):						
Operating leases	7.9	4.0	7.4	6.8	4.0	6.3
Finance leases	1.5	20.1	20.0	—	20.1	20.1
Weighted-average discount rate:						
Operating leases	3.04%	3.50%	3.11%	2.92%	3.50%	3.03%
Finance leases	3.77%	8.18%	8.18%	—	8.18%	8.18%

	HEI consolidated			Hawaiian Electric consolidated		
Year ended December 31, 2022	Other leases	PPAs classified as leases	Total	Other leases	PPAs classified as leases	Total
(dollars in thousands)						
Operating lease cost	$ 20,811	$ 46,160	$ 66,971	$ 15,030	$ 46,160	$ 61,190
Variable lease cost	8,931	241,199	250,130	6,152	241,199	247,351
Sublease income	(2,675)	—	(2,675)	(2,675)	—	(2,675)
Total operating lease cost	$ 27,067	$ 287,359	$ 314,426	$ 18,507	$ 287,359	$ 305,866
Finance lease costs:						
Amortization of right-of-use assets	$ 188	$ 1,008	$ 1,196	$ —	$ 1,008	$ 1,008
Interest on lease liabilities	20	786	806	—	786	786
Total finance lease cost	$ 208	$ 1,794	$ 2,002	$ —	$ 1,794	$ 1,794
Other information						
Cash paid for amounts included in the measurement of lease liabilities:						
Operating cash flows from operating leases	$ 19,143	$ 40,050	$ 59,193	$ 14,068	$ 40,050	$ 54,118
Operating cash flows from financing leases	$ 20	$ 786	$ 806	$ —	$ 786	$ 786
Financing cash flows from financing leases	$ 179	$ 670	$ 849	$ —	$ 670	$ 670
Weighted-average remaining lease term (in years):						
Operating leases	8.1	5.0	7.7	7.3	5.0	6.8
Finance leases	2.4	19.6	19.2	—	19.6	19.6
Weighted-average discount rate:						
Operating leases	2.96%	3.50%	3.04%	2.94%	3.50%	3.05%
Finance leases	3.77%	3.92%	3.92%	—	3.92%	3.92%

The following table summarizes the maturity of our operating lease liabilities as of December 31, 2023:

	HEI consolidated			Hawaiian Electric consolidated		
(in millions)	Other leases	PPAs classified as leases	Total	Other leases	PPAs classified as leases	Total
2024	$ 21	$ 4	$ 25	$ 15	$ 4	$ 19
2025	16	4	20	12	4	16
2026	16	4	20	12	4	16
2027	9	4	13	6	4	10
2028	7	—	7	5	—	5
Thereafter	33	—	33	21	—	21
Total lease payments	102	16	118	71	16	87
Less: Imputed interest	(13)	(1)	(14)	(7)	(1)	(8)
Total present value of lease payments[1]	$ 89	$ 15	$ 104	$ 64	$ 15	$ 79

1 The fixed capacity payment related to the existing PPA with PGV, which will expire on December 31, 2027, is included as a lease liability as of December 31, 2021. The PGV facility returned to service with firm capacity in 2021. The annual capacity payment based on the most recent accepted output is approximately $4 million. The lease liability will be remeasured when PGV ramps back up to the original contracted firm capacity.

The following table summarizes the maturity of our finance lease liabilities for PPAs as of December 31, 2023:

	HEI consolidated	Hawaiian Electric consolidated
(in millions)	PPAs classified as leases	PPAs classified as leases
2024	$ 34	$ 34
2025	34	34
2026	34	34
2027	34	34
2028	34	34
Thereafter	511	511
Total lease payments	681	681
Less: Imputed interest	(343)	(343)
Total present value of lease payments	$ 338	$ 338

Note: Other finance leases are not material.

Note 10 · Revenues

Revenue from contracts with customers. The revenues subject to ASC Topic 606 include the Utilities' electric energy sales revenue and the ASB's transaction fees, as further described below.

Electric Utilities.

Electric energy sales. Electric energy sales represent revenues from the generation and transmission of electricity to customers under tariffs approved by the PUC. Transaction pricing for electricity is determined and approved by the PUC for each rate class and includes revenues from the base electric charges, which are composed of (1) the customer, demand, energy, and minimum charges, and (2) the power factor, service voltage, and other adjustments as provided in each rate and rate rider schedule. Electric energy sales also represent contract rate charge from the generation and transmission of electricity to the Army. The monthly pricing is recalculated on an annual basis based on actual costs, approved by the Army.

The Utilities satisfy performance obligations of electric energy sales over time, i.e., the Utilities generate and transfer control of the electricity over time as the customer simultaneously receives and consumes the benefits provided by the Utilities' performance. Payments from customers are generally due within 30 days from the end of the billing period. As electric bills to customers reflect the amount that corresponds directly with the value of the Utilities' performance to date, the Utilities have elected to use the right to invoice practical expedient, which entitles them to recognize revenue in the amount they have the right to invoice.

The Utilities' revenues include amounts for recovery of various Hawaii state revenue taxes. Revenue taxes are generally recorded as an expense in the year the related revenues are recognized. For 2023, 2022 and 2021, the Utilities' revenues include recovery of revenue taxes of approximately $291 million, $303 million and $226 million, respectively, which amounts are in "Taxes, other than income taxes" expense. However, the Utilities pay revenue taxes to the taxing authorities based on (1) the prior year's billed revenues (in the case of public service company taxes and PUC fees) in the current year or (2) the current year's cash collections from electric sales (in the case of franchise taxes) after year end. As of December 31, 2023 and 2022, the Utilities had recorded $182 million and $188 million, respectively, in "Taxes accrued, including revenue taxes" on the Utilities' consolidated balance sheet for amounts previously collected from customers or accrued for public service company taxes and PUC fees, net of amounts paid to the taxing authorities. Such amounts will be used to pay public service company taxes and PUC fees owed for the following year.

Bank.

Bank fees. Bank fees are primarily transaction-based and are recognized when the transaction has occurred and the performance obligation satisfied. From time to time, customers will request a fee waiver and ASB may grant reversals of fees. Revenues are not recorded for the estimated amount of fee reversals for each period.

Fees from other financial services - These fees primarily include debit card interchange income and fees, automated teller machine fees, credit card interchange income and fees, check ordering fees, wire fees, safe deposit rental fees, corporate/business fees, merchant income, online banking fees and international banking fees. Amounts paid to third parties for payment network expenses are included in this financial statement caption in ASB's Statements of Income and Comprehensive Income Data (in Revenues—Bank financial statement caption of HEI's Consolidated Statements of Income).

Fee income on deposit liabilities - These fees primarily include "not sufficient funds" fees, monthly deposit account service charge fees, commercial account analysis fees and other deposit fees.

Fee income on other financial products - These fees primarily include commission income from the sales of annuity, mutual fund, and life insurance products. ASB also offers a fee-based, managed account product in which income is based on a percentage of assets under management.

Other Segment.

Other sales. Other sales primarily consist of revenues from the generation and sale of renewable energy at fixed contractual prices per kWh to customers under power purchase agreements by Pacific Current subsidiaries. The performance obligation is satisfied over time as renewable energy is generated and control is transferred to the customer that simultaneously receives and consumes the benefits provided. Payments from customers are generally due within 30 days from the end of the billing period. The bill to customers reflects the amount that corresponds directly with the value of performance to date. Pacific Current has elected to use the right to invoice practical expedient, which entitles it to recognize revenue in the amount they have the right to invoice.

Revenues from other sources. Revenues from other sources not subject to ASC Topic 606 are accounted for as follows:

Electric Utilities.

Regulatory revenues. Regulatory revenues primarily consist of revenues from the decoupling mechanism and cost recovery surcharges.

Decoupling mechanism - Under the current decoupling mechanism, the Utilities are allowed to recover or obligated to refund the difference between actual revenue and the target revenue as determined by the PUC, collect annual revenue adjustment mechanism (ARA) and exceptional project recovery mechanism revenues, and recover or refund performance incentive mechanism penalties or rewards. These adjustments will be reflected in tariffs in future periods. Under the PBR framework, the accrued RBA revenues as of the preceding September 30 balance and the annual ARA amount are billed from January 1 through December 31 of each year, which is within 24 months following the end of the year in which they are recorded as required by the accounting standard for alternative revenue programs (see "Regulatory proceedings" in Note 4).

Cost recovery surcharges - For the timely recovery of additional costs incurred, and reconciliation of costs and expenses included in tariffed rates, the Utilities recognize revenues under surcharge mechanisms approved by the PUC. These will be reflected in tariffs in future periods (e.g., ECRC and PPAC).

Since revenue adjustments discussed above resulted from either agreements with the PUC or change in tax law, rather than contracts with customers, they are not subject to the scope of ASC Topic 606. Also, see Notes 1, 4 and 13 of the Consolidated Financial Statements. The Utilities have elected to present these revenue adjustments on a gross basis, which results in the amounts being billed to customers presented in revenues from contracts with customers and the amortization of the related regulatory asset/liability as revenues from other sources. Depending on whether the previous deferral balance being amortized was a regulatory asset or regulatory liability, and depending on the size and direction of the current year deferral of surcharges and/or refunds to customers, it could result in negative regulatory revenue during the year.

Utility pole attachment fees. These fees primarily represent revenues from third-party companies for their access to and shared use of Utilities-owned poles through licensing agreements. As the shared portion of the utility pole is functionally dependent on the rest of the structure, no distinct goods appear to exist. Therefore, these fees are not subject to the scope of ASC Topic 606, but recognized in accordance with ASC Topic 610, *Other Income*.

Army privatization extraordinary O&M (EOM) fees. The monthly EOM fee provides the recovery of the incremental extraordinary O&M costs not covered under the standard utility services. The nature of the work related to transitional period revenue and monthly EOM fees do not represent the Utilities' ongoing major or central operations (i.e., generating, and transmission and distribution of electricity) and is provided specifically for the arrangement between the Utilities and the Army. Therefore, these revenues are not subject to the scope of ASC Topic 606, but recognized in accordance with ASC Topic 610, *Other Income*.

Bank.

Interest and dividend income. Interest and fees on loans are recognized in accordance with ASC Topic 310, *Receivables*, including the related allowance for credit losses. Interest and dividends on investment securities are recognized in accordance with ASC Topic 320, *Investments-Debt and Equity Securities.* See Notes 1 and 5 of the Consolidated Financial Statements.

Other bank noninterest income. Other bank noninterest income primarily consists of mortgage banking income and bank-owned life insurance income.

Mortgage banking income - Mortgage banking income consists primarily of realized and unrealized gains on sale of loans accounted for pursuant to ASC Topic 860, *Transfers and Servicing*. Interest rate lock commitments and forward loan sales are considered derivatives and are accounted pursuant to ASC Topic 815, *Derivatives and Hedging*.

Bank-Owned Life Insurance (BOLI) - The recognition of BOLI cash surrender value does not represent a contract with a customer and is accounted for in accordance with ASC 325-30, *Investments-Other - Investments in Insurance Contracts*.

Revenue disaggregation. The following tables disaggregate revenues by major source, timing of revenue recognition, and segment:

	Year ended December 31, 2023				Year ended December 31, 2022			
(in thousands)	Electric utility	Bank	Other	Total	Electric utility	Bank	Other	Total
Revenues from contracts with customers								
Electric energy sales - residential	$1,026,321	$ —	$ —	$1,026,321	$1,078,372	$ —	$ —	$1,078,372
Electric energy sales - commercial	1,044,045	—	—	1,044,045	1,087,485	—	—	1,087,485
Electric energy sales - large light and power	1,141,128	—	—	1,141,128	1,221,608	—	—	1,221,608
Electric energy sales - other	19,471	—	—	19,471	17,063	—	—	17,063
Bank fees	—	48,781	—	48,781	—	48,883	—	48,883
Other sales	—	—	17,540	17,540	—	—	11,804	11,804
Total revenues from contracts with customers	3,230,965	48,781	17,540	3,297,286	3,404,528	48,883	11,804	3,465,215
Revenues from other sources								
Regulatory revenue	3,708	—	—	3,708	(29,124)	—	—	(29,124)
Bank interest and dividend income	—	334,783	—	334,783	—	265,874	—	265,874
Other bank noninterest income	—	11,099	—	11,099	—	6,311	—	6,311
Other	34,848	—	442	35,290	33,183	—	526	33,709
Total revenues from other sources	38,556	345,882	442	384,880	4,059	272,185	526	276,770
Total revenues	$3,269,521	$ 394,663	$17,982	$3,682,166	$3,408,587	$ 321,068	$12,330	$3,741,985
Timing of revenue recognition								
Services/goods transferred at a point in time	$ —	$ 48,781	$ —	$ 48,781	$ —	$ 48,883	$ —	$ 48,883
Services/goods transferred over time	3,230,965	—	17,540	3,248,505	3,404,528	—	11,804	3,416,332
Total revenues from contracts with customers	$3,230,965	$ 48,781	$17,540	$3,297,286	$3,404,528	$ 48,883	$11,804	$3,465,215

There are no material contract assets or liabilities associated with revenues from contracts with customers existing at December 31, 2023 and 2022. Accounts receivable and unbilled revenues related to contracts with customers represent an unconditional right to consideration since all performance obligations have been satisfied. These amounts are disclosed as *accounts receivable and unbilled revenues, net* on HEI's consolidated balance sheets and *customer accounts receivable, net* and *accrued unbilled revenues, net* on Hawaiian Electric's consolidated balance sheets.

As of December 31, 2023, the Company had no material remaining performance obligations due to the nature of the Company's contracts with its customers. For the Utilities, performance obligations are fulfilled as electricity is delivered to customers. For ASB, fees are recognized when a transaction is completed.

Note 11 · Retirement benefits

Defined benefit plans. Substantially all of the employees of HEI and the Utilities hired on or before December 31, 2021, participate in the Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries (HEI Pension Plan). The HEI Pension Plan was closed to new employees first hired on or after January 1, 2022. Substantially all of the employees of ASB participated in the American Savings Bank Retirement Plan (ASB Pension Plan) until it was frozen on December 31, 2007. The HEI Pension Plan and the ASB Pension Plan (collectively, the Plans) are qualified, noncontributory defined benefit pension plans and include, in the case of the HEI Pension Plan, benefits for utility union employees determined in accordance with the terms of the collective bargaining agreements between the Utilities and the union. The Plans are subject to the provisions of ERISA. In addition, some current and former executives and directors of HEI and its subsidiaries participate in noncontributory, nonqualified plans (collectively, Supplemental Plans). In general, benefits are based on the employees' or directors' years of service and compensation.

The continuation of the Plans and the Supplemental Plans and the payment of any contribution thereunder are not assumed as contractual obligations by the participating employers. The Supplemental Plan for directors has been frozen since 1996. The ASB Pension Plan was frozen as of December 31, 2007. The HEI Supplemental Executive Retirement Plan and ASB Supplemental Executive Retirement, Disability, and Death Benefit Plan (noncontributory, nonqualified, defined benefit plans) were frozen as of December 31, 2008. No participants have accrued any benefits under these plans after the respective plan's freeze and the plans will be terminated at the time all remaining benefits have been paid.

Each participating employer reserves the right to terminate its participation in the applicable plans at any time, and HEI and ASB reserve the right to terminate their respective plans at any time. If a participating employer terminates its participation in the Plans, the interest of each affected participant would become 100% vested to the extent funded. Upon the termination of the Plans, assets would be distributed to affected participants in accordance with the applicable allocation provisions of ERISA and any excess assets that exist would be paid to the participating employers. Participants' benefits in the Plans are covered up to certain limits under insurance provided by the Pension Benefit Guaranty Corporation.

Postretirement benefits other than pensions. HEI and the Utilities provide eligible employees health and life insurance benefits upon retirement under the Postretirement Welfare Benefits Plan for Employees of Hawaiian Electric Company, Inc. and participating employers (Hawaiian Electric Benefits Plan). Eligibility of employees and dependents is based on eligibility to retire at termination, the retirement date and the date of hire. The plan was amended in 2011, changing eligibility for certain bargaining unit employees hired prior to May 1, 2011, based on new minimum age and service requirements effective January 1, 2012, per the collective bargaining agreement, and certain management employees hired prior to May 1, 2011 based on new eligibility minimum age and service requirements effective January 1, 2012. The minimum age and service requirements for management and bargaining unit employees hired May 1, 2011 and thereafter have increased and their dependents are not eligible to receive postretirement benefits. Employees may be eligible to receive benefits from the HEI Pension Plan but may not be eligible for postretirement welfare benefits if the different eligibility requirements are not met.

The executive death benefit plan was frozen on September 10, 2009 for participants at benefit levels as of that date.

The Company's and Utilities' cost for OPEB has been adjusted to reflect the plan amendments, which reduced benefits and created prior service credits to be amortized over average future service of affected participants. The amortization of the prior service credit will reduce benefit costs until the various credit bases are fully recognized. Each participating employer reserves the right to terminate its participation in the Hawaiian Electric Benefits Plan at any time.

Balance sheet recognition of the funded status of retirement plans. Employers must recognize on their balance sheets the funded status of defined benefit pension and other postretirement benefit plans with an offset to AOCI in shareholders' equity (using the projected benefit obligation (PBO) and accumulated postretirement benefit obligation (APBO), to calculate the funded status).

The PUC allowed the Utilities to adopt pension and OPEB tracking mechanisms in previous rate cases. The amount of the net periodic pension cost (NPPC) and net periodic benefits costs (NPBC) to be recovered in rates is established by the PUC in each rate case or as allowed under the PBR Framework (see "Regulatory proceedings" in Note 4). Under the Utilities' tracking mechanisms, any actual costs determined in accordance with GAAP that are over/under amounts allowed in rates are charged/credited to a regulatory asset/liability. The regulatory asset/liability for each utility will then be amortized over 5 years beginning with the respective utility's next rate case. Accordingly, all retirement benefit expenses (except for executive life and nonqualified pension plan expenses, which amounted to $0.7 million and $1.3 million in 2023 and 2022, respectively) determined in accordance with GAAP will be recovered.

Under the tracking mechanisms, amounts that would otherwise be recorded in AOCI (excluding amounts for executive life and nonqualified pension plans), net of taxes, as well as other pension and OPEB charges, are allowed to be reclassified as a regulatory asset, as those costs will be recovered in rates through the NPPC and NPBC in the future. The Utilities have reclassified to a regulatory asset/(liability) charges for retirement benefits that would otherwise be recorded in AOCI (amounting to the elimination of a potential adjustment to AOCI of $(11.1) million pretax and $(269.3) million pretax for 2023 and 2022, respectively).

Under the pension tracking mechanism, the Utilities are required to make contributions to the pension trust in the amount of the actuarially calculated NPPC, except when limited by the ERISA minimum contribution requirements or the maximum contributions imposed by the Internal Revenue Code. Contributions in excess of the calculated NPPC are recorded in a separate regulatory asset.

The OPEB tracking mechanisms generally require the Utilities to make contributions to the OPEB trust in the amount of the actuarially calculated NPBC, (excluding amounts for executive life), except when limited by material, adverse consequences imposed by federal regulations. Future decisions in rate cases could further impact funding amounts.

Defined benefit pension and other postretirement benefit plans information. The changes in the obligations and assets of the Company's and Utilities' retirement benefit plans and the changes in AOCI (gross) for 2023 and 2022 and the funded status of these plans and amounts related to these plans reflected in the Company's and Utilities' consolidated balance sheets as of December 31, 2023 and 2022 were as follows:

	2023		2022	
(in thousands)	Pension benefits	Other benefits	Pension benefits	Other benefits
HEI consolidated				
Benefit obligation, January 1	$ 1,856,765	$ 157,436	$ 2,644,639	$ 218,151
Service cost	45,578	1,430	78,173	2,580
Interest cost	103,000	8,520	80,062	6,502
Actuarial loss (gain)	131,437	(13,867)	(848,905)	(60,283)
Participants contributions	—	3,542	—	3,348
Benefits paid and expenses	(103,802)	(13,718)	(97,204)	(12,862)
Benefit obligation, December 31	2,032,978	143,343	1,856,765	157,436
Fair value of plan assets, January 1	1,806,379	190,547	2,320,745	239,311
Actual return on plan assets	260,748	25,926	(461,669)	(39,469)
Employer contributions	8,274	—	42,542	—
Participants contributions	—	3,542	—	3,348
Benefits paid and expenses	(101,862)	(12,643)	(95,239)	(12,643)
Fair value of plan assets, December 31	1,973,539	207,372	1,806,379	190,547
Accrued benefit asset (liability), December 31	$ (59,439)	$ 64,029	$ (50,386)	$ 33,111
Other assets	$ 23,091	$ 64,463	$ 21,012	$ 33,526
Defined benefit pension and other postretirement benefit plans liability	(82,530)	(434)	(71,398)	(415)
Accrued benefit asset (liability), December 31	$ (59,439)	$ 64,029	$ (50,386)	$ 33,111
AOCI debit/(credit), January 1 (excluding impact of PUC D&Os)	$ 74,418	$ (26,238)	$ 347,799	$ (19,975)
Recognized during year – prior service credit	—	875	—	928
Recognized during year – net actuarial gain (loss)	(669)	1,888	(27,412)	12
Occurring during year – net actuarial loss (gain)	11,513	(26,143)	(245,969)	(7,203)
AOCI debit/(credit) before cumulative impact of PUC D&Os, December 31	85,262	(49,618)	74,418	(26,238)
Cumulative impact of PUC D&Os	(67,732)	43,066	(55,201)	19,486
AOCI debit/(credit), December 31	$ 17,530	$ (6,552)	$ 19,217	$ (6,752)
Net actuarial loss (gain)	$ 85,262	$ (49,618)	$ 74,418	$ (25,363)
Prior service gain	—	—	—	(875)
AOCI debit/(credit) before cumulative impact of PUC D&Os, December 31	85,262	(49,618)	74,418	(26,238)
Cumulative impact of PUC D&Os	(67,732)	43,066	(55,201)	19,486
AOCI debit/(credit), December 31	17,530	(6,552)	19,217	(6,752)
Income taxes (benefits)	(4,639)	1,689	(5,088)	1,740
AOCI debit/(credit), net of taxes (benefits), December 31	$ 12,891	$ (4,863)	$ 14,129	$ (5,012)

As shown in the table above, as of December 31, 2023 and 2022, the other postretirement benefit plan with APBO in excess of plan assets is related to an unfunded plan.

(in thousands)	2023 Pension benefits	2023 Other benefits	2022 Pension benefits	2022 Other benefits
Hawaiian Electric consolidated				
Benefit obligation, January 1	$ 1,716,125	$ 150,534	$ 2,464,944	$ 209,470
Service cost	44,143	1,415	75,845	2,554
Interest cost	95,351	8,143	74,363	6,227
Actuarial loss (gain)	126,846	(13,721)	(804,498)	(58,253)
Participants contributions	—	3,473	—	3,286
Benefits paid and expenses	(94,783)	(13,272)	(88,450)	(12,750)
Transfers	781	—	(6,079)	—
Benefit obligation, December 31	1,888,463	136,572	1,716,125	150,534
Fair value of plan assets, January 1	1,665,880	187,494	2,142,617	235,525
Actual return on plan assets	246,976	25,529	(426,825)	(38,764)
Employer contributions	8,252	—	41,894	—
Participants contributions	—	3,473	—	3,286
Benefits paid and expenses	(94,332)	(12,356)	(87,952)	(12,541)
Other	509	—	(3,854)	(12)
Fair value of plan assets, December 31	1,827,285	204,140	1,665,880	187,494
Accrued benefit asset (liability), December 31	$ (61,178)	$ 67,568	$ (50,245)	$ 36,960
Other assets	$ —	$ 67,568	$ —	$ 36,960
Other liabilities (short-term)	(507)	—	(497)	—
Defined benefit pension and other postretirement benefit plans liability	(60,671)	—	(49,748)	—
Accrued benefit asset (liability), December 31	$ (61,178)	$ 67,568	$ (50,245)	$ 36,960
AOCI debit/(credit), January 1 (excluding impact of PUC D&Os)	$ 57,264	$ (25,402)	$ 329,645	$ (20,231)
Recognized during year – prior service credit	—	872	—	925
Recognized during year – net actuarial gain (loss)	(28)	1,827	(26,358)	—
Occurring during year – net actuarial loss (gain)	12,103	(25,807)	(246,023)	(6,096)
AOCI debit/(credit) before cumulative impact of PUC D&Os, December 31	69,339	(48,510)	57,264	(25,402)
Cumulative impact of PUC D&Os	(67,732)	43,066	(55,201)	19,486
AOCI debit/(credit), December 31	$ 1,607	$ (5,444)	$ 2,063	$ (5,916)
Net actuarial loss (gain)	$ 69,339	$ (48,510)	$ 57,264	$ (24,530)
Prior service gain	—	—	—	(872)
AOCI debit/(credit) before cumulative impact of PUC D&Os, December 31	69,339	(48,510)	57,264	(25,402)
Cumulative impact of PUC D&Os	(67,732)	43,066	(55,201)	19,486
AOCI debit/(credit), December 31	1,607	(5,444)	2,063	(5,916)
Income taxes (benefits)	(414)	1,402	(531)	1,523
AOCI debit/(credit), net of taxes (benefits), December 31	$ 1,193	$ (4,042)	$ 1,532	$ (4,393)

Pension benefits. In 2023, actuarial losses due to demographic experience, including any assumption changes, reduced the funded position. The most impactful of these assumption changes were the decrease in the discount rate used to measure PBO compared to the prior year and the change in assumed rates of retirement. Investment returns greater than assumed largely offset the decline.

In 2022, actuarial gains due to demographic experience, including any assumption changes, the most significant of which was the increase in the discount rate used to measure PBO compared to the prior year, improved funded position while investment returns lower than assumed rates, partially offset the improvement.

Other benefits. In 2023, actuarial gains due to demographic experience, including any assumption changes, improved the funded position. The most impactful of these assumption changes was a reduction in the percentage of participants expected to participate. This gain was partially offset by a decrease in the discount rate. Investment returns greater than assumed further improved the funded position.

In 2022, actuarial gains due to demographic experience, including any assumption changes, the most significant of which was the increase in the discount rate used to measure APBO compared to the prior year, improved funded position while investment returns lower than assumed rates, partially offset the improvement.

The dates used to determine retirement benefit measurements for the defined benefit plans and OPEB were December 31 of 2023, 2022 and 2021.

Through December 31, 2020, for purposes of calculating NPPC and NPBC for all plan assets, the Company and the Utilities have determined the market-related value of retirement benefit plan assets, primarily equity securities and fixed income securities, by calculating the difference between the expected return and the actual return on the fair value of the plan assets, then amortizing the difference over future years – 0% in the first year and 25% in each of years two through five – and finally adding or subtracting the unamortized differences for the past four years from fair value. The method includes a 15% range restriction around the fair value of such assets (i.e., 85% to 115% of fair value). Effective January 1, 2021, the Company adopted a change in accounting principle for the plans' fixed income securities from the calculated market-related value method to the fair value method in the calculation of the expected return on plan assets component of NPPC and NPBC. The remaining plan assets continue to use the calculated market-related value methodology. The Company considers the fair value approach to be preferable for its fixed-income securities portfolio because it results in a current reflection of the changes in the value of plan assets in a way similar to the obligations it is intended to hedge. The Company evaluated the effect of this change in accounting principle and deemed it to be immaterial to the historical financial statements of the Company and Hawaiian Electric and, therefore, did not account for the change retrospectively and recorded the cumulative effects from the change in accounting principle in earnings for non-Utility businesses in the first quarter of 2021. Amounts related to the Utilities were reflected as adjustments to regulatory assets as appropriate, consistent with the expected regulatory treatment as described in the following paragraph.

The Utilities have implemented pension and OPEB tracking mechanisms under which all of their retirement benefit expenses (except for executive life and nonqualified pension plan expenses) determined in accordance with GAAP are recovered over time. Under the tracking mechanisms, any actual costs determined in accordance with GAAP that are over/under amounts allowed in rates are charged/credited to a regulatory asset/liability. The regulatory asset/liability for each utility will then be amortized over 5 years beginning with the respective utility's next rate proceeding.

A primary goal of the plans is to achieve long-term asset growth sufficient to pay future benefit obligations at a reasonable level of risk. The investment policy target for defined benefit pension and OPEB plans of HEI and the Utilities reflects the philosophy that long-term growth can best be achieved by prudent investments in equity securities while balancing overall fund and pension liability volatility by an appropriate allocation to fixed income securities. To reduce the level of portfolio risk and volatility in returns, efforts have been made to diversify the plans' investments by asset class, geographic region, market capitalization and investment style. ASB's frozen, overfunded defined benefit pension plan is invested in a portfolio that uses a liability-driven investment strategy to limit funded status volatility.

The asset allocation of defined benefit retirement plans to equity and fixed income securities (excluding cash) and related investment policy targets and ranges were as follows:

	Pension benefits[1]				**Other benefits[2]**			
			Investment policy				**Investment policy**	
December 31	**2023**	**2022**	**Target**	**Range[3]**	**2023**	**2022**	**Target**	**Range[3]**
Assets held by category								
U.S. equity securities	56%	58%	50%	40-65%	58%	57%	50%	40-65%
Non-U.S equity securities	13	13	15	5-25%	15	15	15	5-25%
Fixed income securities	28	27	30	20-60%	27	28	30	20-60%
Private equity	3	2	5	0-10%	—	—	5	0-10%
	100%	100%	100%		100%	100%	100%	

1 Asset allocation (excluding cash) is applicable to only HEI and the Utilities. As of December 31, 2023 and 2022, nearly all of ASB's pension assets were invested in fixed income securities.

2 Asset allocation (excluding cash) is applicable to only HEI and the Utilities. ASB does not fund its other benefits.

3 Broad range for equity securities is a minimum of 60% and a maximum of 80% for pension benefits and other benefits.

The fair values of the investments shown in the tables below represent the Company's best estimates of the amounts that would be received upon sale of those assets in an orderly transaction between market participants at that date. Those fair value measurements maximize the use of observable inputs. However, in situations where there is little, if any, market activity for the asset at the measurement date, the fair value measurement reflects the Company's judgments about the assumptions that market participants would use in pricing the asset. Those judgments are developed by the Company based on the best information available in the circumstances.

The Company used the following valuation methodologies for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2023 and 2022.

Equity securities, equity index fund, exchange-traded funds, U.S. Treasury fixed income securities and mutual funds (Level 1). Equity securities, equity index fund, exchange-traded funds, U.S. Treasury fixed income securities and mutual funds are valued at the closing price reported on the active market on which the individual securities or funds are traded.

Fixed income securities and preferred securities (Level 2). Fixed income and preferred securities, other than those issued by the U.S. Treasury, are valued based on yields currently available on comparable securities of issuers with similar credit ratings.

Assets held in various trusts for the retirement benefit plans are measured at fair value on a recurring basis and were as follows:

	Pension benefits			Other benefits		
		Fair value measurements using			Fair value measurements using	
(in millions)	December 31	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	December 31	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)
2023						
U.S. equity securities	$ 449	$ 449	$ —	$ 54	$ 54	$ —
Non-U.S. equity securities	165	165	—	20	20	—
U.S. equity index and exchange-traded funds (ETFs)	584	584	—	64	64	—
Non-U.S. equity investments at net asset value (NAV)	77	—	—	10	—	—
Total equity investments	1,275	1,198	—	148	138	—
Fixed income securities	85	13	72	—	—	—
Fixed income mutual and ETFs	264	264	—	53	53	—
Fixed income investments at NAV	250	—	—	2	—	—
Total fixed income investments	599	277	72	55	53	—
Private equity at NAV	50	—	—	1	—	—
Cash equivalents, fund and at NAV	60	15	—	3	3	—
Total	1,984	$ 1,490	$ 72	207	$ 194	$ —
Cash, receivables and payables, net	(10)			—		
Fair value of plan assets	$ 1,974			$ 207		
2022						
U.S. equity securities	$ 387	$ 387	$ —	$ 48	$ 48	$ —
Non-U.S. equity securities	147	147	—	18	18	—
U.S. equity index and ETFs	580	580	—	58	58	—
Non-U.S. equity investments at NAV	75	—	—	10	—	—
Total equity investments	1,189	1,114	—	134	124	—
Fixed income securities	83	10	73	—	—	—
Fixed income mutual and ETFs	225	225	—	50	50	—
Fixed income investments at NAV	226	—	—	3	—	—
Total fixed income investments	534	235	73	53	50	—
Private equity at NAV	34	—	—	—	—	—
Cash equivalents, fund and at NAV	48	15	—	4	3	—
Total	1,805	$ 1,364	$ 73	191	$ 177	$ —
Cash, receivables and payables, net	1			—		
Fair value of plan assets	$ 1,806			$ 191		

The fair value of investments measured at NAV presented in the table above is intended to permit reconciliation to the fair value of plan assets.

The following table represents assets measured at NAV.

	Pension benefits			Other benefits		
Measured at NAV	**December 31**	**Redemption frequency**	**Redemption notice period**	**December 31**	**Redemption frequency**	**Redemption notice period**
(in millions)						
2023						
Non-U.S. equity funds (a)	$ 77	Daily-Monthly	5-30 days	$ 10	Daily-Monthly	5-30 days
Fixed income investments (b)	250	Daily	15 days	2	Daily	15 days
Private equity (c)	50	NA	NA	1	NA	NA
Cash equivalents (d)	45	Daily	0-1 day	—	Daily	0-1 day
	$ 422			$ 13		
2022						
Non-U.S. equity funds (a)	$ 75	Daily-Monthly	5-30 days	$ 10	Daily-Monthly	5-30 days
Fixed income investments (b)	226	Daily	15 days	3	Daily	15 days
Private equity (c)	34	NA	NA	—	NA	NA
Cash equivalents (d)	33	Daily	0-1 day	1	Daily	0-1 day
	$ 368			$ 14		

NA Not applicable

None of the investments presented in the tables above have unfunded commitments, other than private equity disclosed in (c) below.

(a) Represents investments in funds that primarily invest in non-U.S., emerging markets equities. Redemption frequency for pension benefits assets as of December 31, 2023 were: daily, 63% and monthly, 37%, and as of December 31, 2022 were daily, 59% and monthly, 41%. Redemption frequency for other benefits assets as of December 31, 2023 were: daily, 61% and monthly, 39% and as of December 31, 2022 were: daily, 56% and monthly, 44%.

(b) Represents investments in fixed income securities invested in a US-dollar denominated fund that seeks to exceed the Bloomberg US Long Corporate A or Better Bond Index through investments in US-dollar denominated fixed income securities and commingled vehicles.

(c) Represents investment in a private equity fund. The fund is valued as reported by the General Partner, based on the valuation of the underlying investments. As of December 31, 2023 and 2022, the unfunded commitment of the private equity fund was $138 million and $56 million, respectively. A second tranche commitment of $100 million was entered into effective January 1, 2023. The fund does not allow redemptions but may be dissolved with six months written notice. The termination date of the fund is November 1, 2100, unless dissolved earlier.

(d) Represents investments in cash equivalent funds. This class includes funds that invest primarily in securities issued or guaranteed by the U.S. government or its agencies or instrumentalities. For pension benefits, the fund may also invest in fixed income securities of investment grade issuers.

The following weighted-average assumptions were used in the accounting for the plans:

	Pension benefits			Other benefits		
December 31	**2023**	**2022**	**2021**	**2023**	**2022**	**2021**
Benefit obligation						
Discount rate[1]	5.35%	5.67%	3.05%	5.39%	5.66%	3.07%
Rate of compensation increase	3.5	3.5	3.5	NA	NA	NA
Net periodic pension/benefit cost (years ended)						
Discount rate[2]	5.67	3.05	2.92	5.66	3.07	2.83
Expected return on plan assets[3]	7.25	7.25	7.25	7.25	7.25	7.25
Rate of compensation increase[4]	3.5	3.5	3.5	NA	NA	NA

NA Not applicable

1 HEI and the Utilities pension benefits discount rate only at December 31, 2023, 2022 and 2021. ASB's pension benefits discount rate at December 31, 2023, 2022 and 2021 was 5.39%, 5.63% and 3.04%, respectively. All other disclosed rates apply to the Company and the Utilities.

2 ASB's pension benefits discount rate for the year ended December 31, 2023, 2022 and 2021 was 5.63%, 3.04% and 2.76%. All other disclosed rates apply to the Company and the Utilities.

3 HEI and the Utilities' plan assets only (gross return). For 2023, 2022 and 2021, ASB's expected return on plan assets was 5.83%, 3.24% and 2.96%, respectively.

4 HEI and the Utilities use a graded rate of compensation increase assumption based on age. The rate provided above is an average across all future years of service for the current population. NA for ASB.

The Company and the Utilities based their selection of an assumed discount rate for 2024 NPPC and NPBC and December 31, 2023 disclosure on a cash flow matching analysis that utilized bond information provided by Bloomberg for all non-callable, high quality bonds (generally rated Aa or better) as of December 31, 2023. In selecting the expected rate of return on plan assets for 2024 NPPC and NPBC: a) HEI and the Utilities considered economic forecasts for the types of investments held by the plans (primarily equity and fixed income investments), the Plans' asset allocations, industry and corporate surveys and the past performance of the plans' assets in selecting 7.25% and b) ASB considered its liability-driven investment strategy in selecting 5.59%, which is consistent with the assumed discount rate as of December 31, 2023 with a 20 basis point active manager premium. For 2023, retirement benefit plans' assets of the Company had a net gain of 14.9% and the Utilities had a net gain of 15.2%.

As of December 31, 2023, the assumed health care trend rates for 2024 and future years were as follows: medical, 6.25%, grading down to 5% for 2029 and thereafter; dental, 5%; and vision, 4%. As of December 31, 2022, the assumed health care trend rates for 2023 and future years were as follows: medical, 6.50%, grading down to 5% for 2029 and thereafter; dental, 5%; and vision, 4%.

The components of NPPC and NPBC were as follows:

	Pension benefits			Other benefits		
(in thousands)	**2023**	**2022**	**2021**	**2023**	**2022**	**2021**
HEI consolidated						
Service cost	$ 45,578	$ 78,173	$ 81,432	$ 1,430	$ 2,580	$ 2,827
Interest cost	103,000	80,062	75,361	8,520	6,502	6,122
Expected return on plan assets	(140,824)	(141,266)	(132,223)	(13,648)	(13,621)	(12,957)
Amortization of net prior service gain	—	—	—	(875)	(928)	(1,533)
Amortization of net actuarial losses (gains)	669	27,412	27,245	(1,888)	(12)	203
Net periodic pension/benefit cost	8,423	44,381	51,815	(6,461)	(5,479)	(5,338)
Impact of PUC D&Os	71,905	37,148	27,963	5,846	4,966	4,839
Net periodic pension/benefit cost (adjusted for impact of PUC D&Os)	$ 80,328	$ 81,529	$ 79,778	$ (615)	$ (513)	$ (499)

	Pension benefits			Other benefits		
(in thousands)	2023	2022	2021	2023	2022	2021
Hawaiian Electric consolidated						
Service cost	$ 44,143	$ 75,845	$ 79,463	$ 1,415	$ 2,554	$ 2,802
Interest cost	95,351	74,363	70,235	8,143	6,227	5,875
Expected return on plan assets	(131,962)	(133,873)	(125,404)	(13,442)	(13,381)	(12,755)
Amortization of net prior service gain	—	—	—	(872)	(925)	(1,530)
Amortization of net actuarial losses (gains)	28	26,358	27,534	(1,827)	—	206
Net periodic pension/benefit cost	7,560	42,693	51,828	(6,583)	(5,525)	(5,402)
Impact of PUC D&Os	71,905	37,148	27,963	5,846	4,966	4,839
Net periodic pension/benefit cost (adjusted for impact of PUC D&Os)	$ 79,465	$ 79,841	$ 79,791	$ (737)	$ (559)	$ (563)

The Company recorded pension expense of $43 million, $47 million, $47 million in 2023, 2022 and 2021, respectively, and OPEB income of $(0.1) million in 2023, 2022 and 2021 and charged the remaining amounts primarily to electric utility plant. The Utilities recorded pension expense of $42 million, $45 million and $47 million, respectively, and OPEB income of $(0.3) million, $(0.1) million and $(0.2) million in 2023, 2022 and 2021, respectively, and charged the remaining amounts primarily to electric utility plant.

Additional information on the defined benefit pension plans' accumulated benefit obligations (ABOs), which do not consider projected pay increases (unlike the PBOs shown in the table above), and pension plans with ABOs and PBOs in excess of plan assets were as follows:

	HEI consolidated		Hawaiian Electric consolidated	
December 31	2023	2022	2023	2022
(in billions)				
Defined benefit plans - ABOs	$ 1.8	$ 1.7	$ 1.7	$ 1.5
Defined benefit plans with PBOs in excess of plan assets				
PBOs	2.0	1.8	1.9	1.7
Fair value of plan assets	1.9	1.7	1.8	1.7

HEI consolidated. The Company estimates that the cash funding for the qualified defined benefit pension plans in 2024 will be $8 million, which will fully satisfy the ERISA minimum required contribution, the requirements of the Utilities' pension tracking mechanisms and the Plan's funding policy. The Company's current estimate of contributions to its other postretirement benefit plans in 2024 is nil.

As of December 31, 2023, the benefits expected to be paid under all retirement benefit plans in 2024, 2025, 2026, 2027, 2028 and 2029 through 2033 amount to $113 million, $117 million, $121 million, $124 million, $128 million and $690 million, respectively.

Hawaiian Electric consolidated. The Utilities estimate that the cash funding for the qualified defined benefit pension plan in 2024 will be $8 million, which will fully satisfy the ERISA minimum required contribution, the requirements of the pension tracking mechanisms and the Plan's funding policy. The Utilities' current estimate of contributions to its other postretirement benefit plans in 2024 is nil.

As of December 31, 2023, the benefits expected to be paid under all retirement benefit plans in 2024, 2025, 2026, 2027, 2028 and 2029 through 2033 amounted to $103 million, $107 million, $110 million, $114 million, $117 million and $635 million, respectively.

Defined contribution plans information. For 2023, 2022 and 2021, the Company's expense for its defined contribution plans under the HEIRSP and the ASB 401(k) Plan was $9 million, $9 million and $6 million, respectively; and its cash contributions were $10 million, $7 million and $6 million, respectively. Included in the 2023 and 2022 amounts are non-elective employer contributions for the Utilities and HEI employees first hired on or after January 1, 2022, equal to 10% of those new employees' annual compensation. For 2023, 2022 and 2021 the Utilities' expense and cash contributions for its defined contribution plan under the HEIRSP was $6 million, $4 million and $3 million, respectively.

Note 12 · Share-based compensation

Under the 2010 Equity and Incentive Plan, as amended and restated effective March 1, 2014 (EIP), HEI can issue shares of common stock as incentive compensation to selected employees in the form of stock options, stock appreciation rights, restricted shares, restricted stock units, performance shares and other share-based and cash-based awards. The original 2010 Equity and Incentive Plan was amended and restated effective March 1, 2014 and an additional 1.5 million shares were added to the shares available for issuance under these programs.

As of December 31, 2023, approximately 2.7 million shares remained available for future issuance under the terms of the EIP, assuming recycling of shares withheld to satisfy statutory tax liabilities relating to EIP awards, including an estimated 0.5 million shares that could be issued upon the vesting of outstanding restricted stock units and the achievement of performance goals for awards outstanding under long-term incentive plans (assuming that such performance goals are achieved at maximum levels).

Restricted stock units awarded under the EIP in 2023, 2022, 2021 and 2020 will vest and be issued in unrestricted stock in three (2023, 2022 and 2021) or four (2020) equal annual increments on the anniversaries of the grant date and are forfeited to the extent they have not become vested for terminations of employment during the vesting period, except that pro-rata vesting is provided for terminations due to death, disability and retirement. Restricted stock units expense has been recognized in accordance with the fair-value-based measurement method of accounting. Dividend equivalent rights are accrued and are paid at the end of the restriction period when the associated restricted stock units vest.

Stock performance awards granted under the 2023-25, 2022-24 and 2021-23 long-term incentive plans (LTIP) entitle the grantee to shares of common stock with dividend equivalent rights once service conditions and performance conditions are satisfied at the end of the three-year performance period. LTIP awards are forfeited for terminations of employment during the performance period, except that pro-rata participation is provided for terminations due to death, disability and retirement based upon completed months of service after a minimum of 12 months of service in the performance period. Compensation expense for the stock performance awards portion of the LTIP has been recognized in accordance with the fair-value-based measurement method of accounting for performance shares.

Under the 2011 Nonemployee Director Stock Plan (2011 Director Plan), HEI can issue shares of common stock as compensation to nonemployee directors of HEI, Hawaiian Electric and ASB. As of December 31, 2023, there were 168,177 shares remaining available for future issuance under the 2011 Director Plan.

Share-based compensation expense and the related income tax benefit were as follows:

(in millions)	2023	2022	2021
HEI consolidated			
Share-based compensation expense[1]	$ 10.5	$ 10.4	$ 9.1
Income tax benefit	2.2	2.1	1.4
Hawaiian Electric consolidated			
Share-based compensation expense[1]	3.3	3.0	2.7
Income tax benefit	0.8	0.7	0.6

[1] For 2023, 2022 and 2021, the Company has not capitalized any share-based compensation.

Stock awards. HEI granted HEI common stock to nonemployee directors under the 2011 Director Plan as follows:

(dollars in millions)	2023	2022	2021
Shares granted	40,450	35,720	29,816
Fair value	$ 1.5	$ 1.5	$ 1.3
Income tax benefit	0.4	0.4	0.3

The number of shares issued to each nonemployee director of HEI, Hawaiian Electric and ASB is determined based on the closing price of HEI common stock on the grant date.

Restricted stock units. Information about HEI's grants of restricted stock units was as follows:

	2023		2022		2021	
	Shares	(1)	Shares	(1)	Shares	(1)
Outstanding, January 1	182,528	$ 39.75	233,448	$ 38.10	193,939	$ 40.89
Granted	100,088	42.41	98,463	41.31	137,582	34.66
Vested	(84,794)	39.41	(96,282)	37.75	(79,623)	38.51
Forfeited	(8,798)	41.63	(53,101)	39.01	(18,450)	39.92
Outstanding, December 31	189,024	$ 41.23	182,528	$ 39.75	233,448	$ 38.10
Total weighted-average grant-date fair value of shares granted (in millions)	$ 4.2		$ 4.1		$ 4.8	

(1) Weighted-average grant-date fair value per share based on the average price of HEI common stock on the date of grant.

For 2023, 2022 and 2021, total restricted stock units and related dividends that vested had a fair value of $3.7 million, $4.2 million and $3.0 million, respectively, and the related tax benefits were $0.8 million, $0.6 million and $0.6 million, respectively.

As of December 31, 2023, there was $4.1 million of total unrecognized compensation cost related to the nonvested restricted stock units. The cost is expected to be recognized over a weighted-average period of 1.8 years.

Long-term incentive plan payable in stock. The 2021-23, 2022-24 and 2023-25 LTIPs provide for performance awards under the EIP of shares of HEI common stock based on the satisfaction of performance goals, including a market condition goal. The number of shares of HEI common stock that may be awarded is fixed on the date the grants are made, subject to the achievement of specified performance levels and calculated dividend equivalents. The potential payout varies from 0% to 200% of the number of target shares, depending on the achievement of the goals. The market condition goal is based on HEI's total shareholder return (TSR) compared to the Peer Group (Edison Electric Institute Index (EEI Index) for the 2021-23 and 2022-24 performance periods, and compared to the Company's compensation peer group consisting of companies in the EEI Index and approved by the Company's Compensation and Human Capital Management Committee for the 2023-25 performance period), in each case over the relevant three-year period. The other performance condition goals relate to EPS growth, cumulative EPS, return on average common equity (ROACE), renewable portfolio standards, carbon emissions reduction, Hawaiian Electric's net income growth, ASB's efficiency ratio and strategic initiatives and Pacific Current's EBITDA growth and return on average invested capital.

LTIP linked to TSR. Information about HEI's LTIP grants linked to TSR was as follows:

	2023		2022		2021	
	Shares	(1)	Shares	(1)	Shares	(1)
Outstanding, January 1	71,574	$ 47.67	90,974	$ 42.86	89,222	$ 42.10
Granted	27,123	55.98	26,469	54.92	46,024	41.12
Vested (issued or unissued and cancelled)	(18,691)	48.62	(29,042)	41.07	(32,355)	38.20
Forfeited	(3,529)	53.72	(16,827)	44.45	(11,917)	43.07
Outstanding, December 31	76,477	$ 50.11	71,574	$ 47.67	90,974	$ 42.86
Total weighted-average grant-date fair value of shares granted (in millions)	$ 1.5		$ 1.5		$ 1.9	

(1) Weighted-average grant-date fair value per share determined using a Monte Carlo simulation model.

The grant date fair values of the shares were determined using a Monte Carlo simulation model utilizing actual information for the common shares of HEI and the Peer Group for the period from the beginning of the performance period to the grant date and estimated future stock volatility of HEI and the Peer Group over the remaining three-year performance period. The expected stock volatility assumptions for HEI and the Peer Group were based on the three-year historic stock volatility. A dividend assumption is not required for the Monte Carlo simulation because the grant payout includes dividend equivalents and projected returns include the value of reinvested dividends.

The following table summarizes the assumptions used to determine the fair value of the LTIP awards linked to TSR and the resulting fair value of LTIP awards granted:

	2023	2022	2021
Risk-free interest rate	4.19%	1.71%	0.19%
Expected life in years	3	3	3
Expected volatility	33.1%	31.0%	29.9%
Range of expected volatility for Peer Group	28.7% to 38.8%	25.4% to 76.7%	25.6% to 102.9%
Grant date fair value (per share)	$ 55.98	$ 54.92	$ 41.12

There were no share-based LTIP awards linked to TSR with a vesting date in 2023. For 2022 and 2021, total vested LTIP awards linked to TSR and related dividends had a fair value of $0.8 million and $0.8 million, respectively, and the related tax benefits were $0.1 million and $0.2 million, respectively.

As of December 31, 2023, there was $1.3 million of total unrecognized compensation cost related to the nonvested performance awards payable in shares linked to TSR. The cost is expected to be recognized over a weighted-average period of 1.5 years.

LTIP awards linked to other performance conditions. Information about HEI's LTIP awards payable in shares linked to other performance conditions was as follows:

	2023		2022		2021	
	Shares	(1)	Shares	(1)	Shares	(1)
Outstanding, January 1	309,589	$ 39.50	306,342	$ 38.42	220,715	$ 41.03
Granted	108,499	42.41	105,860	41.31	184,102	34.37
Vested	(62,778)	48.07	(71,807)	37.68	(43,155)	34.12
Increase above target (cancelled)	(13,153)	36.59	36,505	35.75	(7,646)	39.06
Forfeited	(15,072)	42.19	(67,311)	37.35	(47,674)	38.74
Outstanding, December 31	327,085	$ 39.44	309,589	$ 39.50	306,342	$ 38.42
Total weighted-average grant-date fair value of shares granted (at target performance levels) (in millions)	$ 4.6		$ 4.4		$ 6.3	

(1) Weighted-average grant-date fair value per share based on the average price of HEI common stock on the date of grant.

For 2023, 2022 and 2021, total vested LTIP awards linked to other performance conditions and related dividends had a fair value of $2.9 million, $3.2 million and $1.7 million, respectively, and the related tax benefits were $0.6 million, $0.4 million and $0.4 million, respectively.

As of December 31, 2023, there was $4.4 million of total unrecognized compensation cost related to the nonvested shares linked to performance conditions other than TSR. The cost is expected to be recognized over a weighted-average period of 1.5 years.

Note 13 · Income taxes

The components of income taxes attributable to net income for common stock were as follows:

	HEI consolidated			Hawaiian Electric consolidated		
Years ended December 31	**2023**	**2022**	**2021**	**2023**	**2022**	**2021**
(in thousands)						
Federal						
Current	$ 30,909	$ 77,595	$ 51,455	$ 40,365	$ 75,118	$ 42,794
Deferred	1,072	(37,410)	(11,689)	(3,444)	(39,646)	(12,109)
Deferred tax credits, net*	52	4,031	4,611	22	137	302
	32,033	44,216	44,377	36,943	35,609	30,987
State						
Current	8,344	11,981	12,119	9,367	15,780	4,861
Deferred	4,196	4,914	6,290	4,883	(1,769)	8,279
Deferred tax credits, net*	—	56	21	—	56	21
	12,540	16,951	18,430	14,250	14,067	13,161
Total	$ 44,573	$ 61,167	$ 62,807	$ 51,193	$ 49,676	$ 44,148

* In 2022 and 2021, primarily represents federal tax credits related to Mauo's solar-plus-storage project, deferred and amortized starting in 2022 and 2021, respectively.

A reconciliation of the amount of income taxes computed at the federal statutory rate to the amount provided in the consolidated statements of income was as follows:

	HEI consolidated			Hawaiian Electric consolidated		
Years ended December 31	**2023**	**2022**	**2021**	**2023**	**2022**	**2021**
(in thousands)						
Amount at the federal statutory income tax rate	$ 51,597	$ 63,881	$ 65,281	$ 51,899	$ 50,526	$ 46,995
Increase (decrease) resulting from:						
State income taxes, net of federal income tax benefit	10,827	14,438	15,735	11,097	11,026	10,323
Net deferred tax asset (liability) adjustment related to the Tax Act	(7,316)	(9,886)	(9,886)	(7,316)	(9,886)	(9,886)
Tax credits, net	(4,070)	(1,297)	(4,473)	(2,251)	(397)	(2,203)
Other, net	(6,465)	(5,969)	(3,850)	(2,236)	(1,593)	(1,081)
Total	$ 44,573	$ 61,167	$ 62,807	$ 51,193	$ 49,676	$ 44,148
Effective income tax rate (%)	18.1	20.1	20.2	20.7	20.6	19.7

The tax effects of book and tax basis differences that give rise to deferred tax assets and liabilities were as follows:

	HEI consolidated		Hawaiian Electric consolidated	
December 31	**2023**	**2022**	**2023**	**2022**
(in thousands)				
Deferred tax assets				
Regulatory liabilities, excluding amounts attributable to property, plant and equipment	$ 78,884	$ 82,488	$ 78,884	$ 82,488
Lease liabilities	113,968	45,016	107,409	37,472
Retirement benefits	23,502	7,692	23,247	6,852
Revenue taxes	49,522	51,392	49,522	51,392
Allowance for bad debts	22,942	22,734	1,646	2,195
Available-for-sale investments	103,587	120,405	—	—
Other[1]	40,051	39,399	19,171	20,287
Total deferred tax assets	432,456	369,126	279,879	200,686
Deferred tax liabilities				
Property, plant and equipment related	533,286	511,832	513,064	497,929
Lease right-of-use assets	113,498	44,461	107,409	37,472
Regulatory assets, excluding amounts attributable to property, plant and equipment	21,872	22,183	21,872	22,183
Retirement benefits	—	—	—	—
Other	61,754	53,112	36,535	27,532
Total deferred tax liabilities	730,410	631,588	678,880	585,116
Net deferred income tax liability	$ 297,954	$ 262,462	$ 399,001	$ 384,430

[1] As of December 31, 2023, HEI consolidated has deferred tax assets of $6.0 million relating to the benefit of state tax credit carryforwards of $8.1 million. These state tax credit carryforwards primarily relate to the West Loch PV project and low income housing investments that do not expire. The Company concluded that as of December 31, 2023, a valuation allowance is not required.

The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences are deductible. Based upon historical taxable income and projections for future taxable income, management believes it is more likely than not the Company and the Utilities will realize substantially all of the benefits of the deferred tax assets. As of December 31, 2023 and 2022, valuation allowances for deferred tax benefits were nil. The Utilities are included in the consolidated federal and Hawaii income tax returns of HEI and are subject to the provisions of HEI's tax sharing agreement, which determines each subsidiary's (or subgroup's) income tax return liabilities and refunds on a standalone basis as if it filed a separate return (or subgroup consolidated return).

The following is a reconciliation of the Company's liability for unrecognized tax benefits for 2023, 2022 and 2021.

	HEI consolidated			Hawaiian Electric consolidated		
(in millions)	**2023**	**2022**	**2021**	**2023**	**2022**	**2021**
Unrecognized tax benefits, January 1	$ 30.6	$ 17.1	$ 12.7	$ 11.7	$ 11.6	$ 12.7
Additions based on tax positions taken during the year	0.5	19.0	2.8	0.3	0.1	0.3
Reductions based on tax positions taken during the year	—	(3.5)	(0.5)	—	—	—
Additions for tax positions of prior years	3.8	0.6	7.6	3.7	0.2	0.2
Reductions for tax positions of prior years	(7.2)	(2.6)	(5.5)	(0.1)	(0.2)	(1.6)
Lapses of statute of limitations	—	—	—	—	—	—
Settlement	—	—	—	—	—	—
Unrecognized tax benefits, December 31	$ 27.7	$ 30.6	$ 17.1	$ 15.6	$ 11.7	$ 11.6

The Internal Revenue Service began its examination of the Company's U.S. income tax returns for 2017 and 2018 in the third quarter of 2020. The Company and the Utilities anticipate completing the examination by the end of 2024. At December 31, 2023, the Company and the Utilities believe that it is reasonably possible that there will be a decrease of up to $1.8 million in unrecognized tax benefits related to the reversal of temporary differences, due to the completion of the examination. In addition, the Company believes that it is reasonably possible that there will be a decrease of up to $1.3 million related the reversal of temporary differences due to the lapsing of the statute of limitations. The Company's and the Utilities' estimate of the unrecognized tax benefits related to the tax credit claims under examination range from nil to $10 million. Of this amount, the Utilities expect that a portion of the recognized tax credit will be returned to ratepayers. At December 31, 2022, the amount was not material.

At December 31, 2023 and 2022, there were $13.8 million and $10.2 million of unrecognized tax benefits, respectively, that, if recognized, would affect the Company's and Utilities' annual effective tax rate.

Based on information currently available, the Company and the Utilities believe these accruals have adequately provided for potential income tax issues with federal and state tax authorities, and that the ultimate resolution of tax issues for all open tax periods will not have a material adverse effect on its results of operations, financial condition or liquidity.

The statute of limitations for IRS examinations has expired for years prior to 2017. The Company is currently under IRS examination for the tax years 2017 and 2018. In the fourth quarter of 2020, the Company and the Hawaii Department of Taxation agreed to a final assessment of tax liabilities for the years 2011 through 2018, however, the statute of limitations for Hawaii remains open for tax years 2017 and subsequent.

HEI consolidated. The Company recognizes interest accrued related to unrecognized tax benefits in "Interest expense-other than on deposit liabilities and other bank borrowings" and penalties, if any, in operating expenses. In 2023, 2022 and 2021, the Company recognized approximately $1.3 million, $0.4 million and $0.2 million, respectively, in interest expense. The Company had $1.9 million and $0.6 million of interest accrued as of December 31, 2023 and 2022, respectively.

Hawaiian Electric consolidated. The Utilities recognize interest accrued related to unrecognized tax benefits in "Interest expense and other charges, net" and penalties, if any, in operating expenses. In each of 2023, 2022 and 2021, the Utilities recognized approximately $0.1 million in interest expense. The Utilities had $0.4 million and $0.2 million of interest accrued as of December 31, 2023 and 2022, respectively.

As of December 31, 2023, the disclosures above present the Company's and the Utilities' accruals for potential tax liabilities, which involve management's judgment regarding the likelihood of the benefits being sustained under governmental review.

Tax developments. The Inflation Reduction Act of 2022 (IRA) was signed by President Biden on August 16, 2022. Key provisions under the IRA include a 15% corporate alternative minimum tax (CAMT) imposed on certain large corporations and a 1% excise tax on stock repurchases after December 31, 2022. Based on current interpretation of the law and current guidance available we do not believe HEI will be impacted by the CAMT or stock repurchase excise tax provisions.

The IRA also creates new tax credits and enhances others to stimulate investment in renewable energy sources. Certain provisions of the IRA became effective in tax year 2023. The Company is exploring clean energy tax incentives included in the IRA.

Note 14 · Cash flows

Years ended December 31	2023	2022	2021
(in millions)			
Supplemental disclosures of cash flow information			
HEI consolidated			
Interest paid to non-affiliates, net of amounts capitalized	$ 170	$ 106	$ 98
Income taxes paid (net of refundable credits)	28	41	41
Income taxes refunded (including refundable credits)	1	2	7
Hawaiian Electric consolidated			
Interest paid to non-affiliates, net of amounts capitalized	74	69	71
Income taxes paid (net of refundable credits)	39	67	45
Income taxes refunded (including refundable credits)	2	—	5
Supplemental disclosures of noncash activities			
HEI consolidated			
Property, plant and equipment-Unpaid invoices and accruals for capital expenditures, balance, end of period (investing)	43	68	48
Common stock dividends reinvested in HEI common stock (financing) [1]	5	—	—
Loans transferred from held for investment to held for sale (investing)	106	—	61
Real estate transferred from property, plant and equipment to other assets held-for-sale (investing)	—	—	3
Transfer of retail repurchase agreements to deposit liabilities (financing)	98	—	—
Right-of-use assets obtained in exchange for operating lease obligations (investing)	1	51	44
Property, plant, equipment and other assets received in exchange for the assumption of debt associated with a business acquisition (investing)	—	68	—
Debt, lease liabilities and other liabilities assumed in business acquisition (financing)	—	68	—
Common stock issued (gross) for director and executive/management compensation (financing)[1]	8	10	7
Obligations to fund low income housing investments, net (investing)	18	9	36
Transfer of securities from available for sale to held to maturities (investing)	—	755	—
Hawaiian Electric consolidated			
Electric utility property, plant and equipment-Unpaid invoices and accruals for capital expenditures, balance, end of period (investing)	42	64	43
Right-of-use assets obtained in exchange for operating lease obligations (investing)	—	44	44
HEI Consolidated and Hawaiian Electric consolidated			
Electric utility property, plant and equipment			
Estimated fair value of noncash contributions in aid of construction (investing)	21	14	8
Increase related to an acquisition (investing)	—	15	—
Right-of-use assets obtained in exchange for finance lease obligations (financing)	294	48	—

[1] The amounts shown represent the market value of common stock issued for director and executive/management compensation and withheld to satisfy statutory tax liabilities.

Note 15 · Regulatory restrictions on net assets

The abilities of certain of HEI's subsidiaries to pay dividends or make other distributions to HEI are subject to contractual and regulatory restrictions. Under the PUC Agreement, in the event that the consolidated common stock equity of the electric utility subsidiaries falls below 35% of the total capitalization of the electric utilities (including the current maturities of long-term debt, but excluding short-term borrowings), the electric utility subsidiaries would, absent PUC approval, be restricted in their payment of cash dividends to 80% of the earnings available for the payment of dividends in the current fiscal year and preceding five years, less the amount of dividends paid during that period. The PUC Agreement also provides that the foregoing dividend restriction shall not be construed as relinquishing any right the PUC may have to review the dividend policies of the electric utility subsidiaries. As of December 31, 2023, the consolidated common stock equity of HEI's electric utility subsidiaries was 51% of their total capitalization (as calculated for purposes of the PUC Agreement, which total capitalization includes finance lease liabilities). As of December 31, 2023, Hawaiian Electric and its subsidiaries had common stock equity of $2.4 billion of which approximately $1.2 billion was not available for transfer to HEI in the form of dividends, loans or advances without regulatory approval.

The ability of ASB to make capital distributions to HEI and other affiliates is restricted under federal law. Subject to a limited exception for stock redemptions that do not result in any decrease in ASB's capital and would improve ASB's financial condition, ASB is prohibited from declaring any dividends, making any other capital distributions, or paying a management fee to a controlling person if, following the distribution or payment, ASB would be deemed to be undercapitalized, significantly undercapitalized or critically undercapitalized. As of December 31, 2023, ASB had in excess of approximately $210 million of net assets over the required "well-capitalized" position. Prior to making any capital distribution (including dividends) to HEI (through ASB Hawaii), ASB evaluates its level of business model risk, credit outlook, current and forecasted liquidity and expected balance sheet growth to determine if a distribution is warranted. All capital distributions (including dividends) to HEI (through ASB Hawaii) are reviewed and approved by the OCC and FRB prior to distribution. Generally, the FRB and OCC may disapprove or deny ASB's request to make a capital distribution if the proposed distribution will cause ASB to become undercapitalized, or the proposed distribution raises safety and soundness concerns, or the proposed distribution violates a prohibition contained in any statute, regulation or agreement between ASB and the OCC. As of December 31, 2023, ASB did not request a dividend distribution from the OCC and FRB, and will reevaluate its ability to distribute excess capital next quarter.

HEI and its subsidiaries are also subject to debt covenants, preferred stock resolutions and the terms of guarantees that could limit their respective abilities to pay dividends. The Company does not expect that the regulatory and contractual restrictions applicable to HEI and/or its subsidiaries will significantly affect the operations of HEI.

Note 16 · Significant group concentrations of credit risk

Most of the Company's business activity is with customers located in the State of Hawaii.

The Utilities are regulated operating electric public utilities engaged in the generation, purchase, transmission, distribution and sale of electricity on the islands of Oahu, Hawaii, Maui, Lanai and Molokai in the State of Hawaii. The Utilities provide the only electric public utility service on the islands they serve. The Utilities extend credit to customers, all of whom reside or conduct business in the State of Hawaii. See Note 4 for a discussion of the Utilities' major customers. The Utilities target compensation at market rates, and due to the significant increase in competitive market pay for linemen over the past few years, provided an 11.4% market rate adjustment and a 4% annual incentive effective February 1, 2024. The International Brotherhood of Electrical Workers Local 1260 represents roughly half of the Utilities' workforce covered by a collective bargaining agreement. On January 26, 2024, a new three-year contract was ratified and will be in effect from November 1, 2024 through October 31, 2027. The contract provides for a 3% general wage increase in each year of the three-year contract, double time for callouts, and a 1% incentive payment upon achievement of specified objectives.

Most of ASB's financial instruments are based in the State of Hawaii, except for the investment securities it owns. Substantially all real estate loans are collateralized by real estate in Hawaii. ASB's policy is to require mortgage insurance on all real estate loans with a loan to appraised value ratio in excess of 80% at origination.

Pacific Current's investments are in projects located in the State of Hawaii since its strategy is focused on investing in non-regulated renewable energy and sustainable infrastructure in the State of Hawaii.

Note 17 · Fair value measurements

Fair value measurement and disclosure valuation methodology. The following are descriptions of the valuation methodologies used for assets and liabilities recorded at fair value and for estimating fair value for financial instruments not carried at fair value:

Short-term borrowings—other than bank. The carrying amount of short-term borrowings approximated fair value because of the short maturity of these instruments.

Investment securities. The fair value of ASB's investment securities is determined quarterly through pricing obtained from independent third-party pricing services or from brokers not affiliated with the trade. Non-binding broker quotes are infrequent and generally occur for new securities that are settled close to the month-end pricing date. The third-party pricing vendors ASB uses for pricing its securities are reputable firms that provide pricing services on a global basis and have processes in place to ensure quality and control. The third-party pricing services use a variety of methods to determine the fair value of securities that fall under Level 2 of ASB's fair value measurement hierarchy. Among the considerations are quoted prices for similar securities in an active market, yield spreads for similar trades, adjustments for liquidity, size, collateral characteristics, historic and generic prepayment speeds, and other observable market factors.

To enhance the robustness of the pricing process, ASB will on a quarterly basis compare its standard third-party vendor's price with that of another third-party vendor. If the prices are within an acceptable tolerance range, the price of the standard vendor will be accepted. If the variance is beyond the tolerance range, an evaluation will be conducted by ASB and a challenge to the price may be made. Fair value in such cases will be based on the value that best reflects the data and observable characteristics of the security. In all cases, the fair value used will have been independently determined by a third-party pricing vendor or non-affiliated broker.

The fair value of the mortgage revenue bonds is estimated using a discounted cash flow model to calculate the present value of future principal and interest payments and, therefore is classified within Level 3 of the valuation hierarchy.

Loans held for sale. Residential and commercial loans are carried at the lower of cost or market and are valued using market observable pricing inputs, which are derived from third party loan sales and, therefore, are classified within Level 2 of the valuation hierarchy.

Loans held for investment. Fair value of loans held for investment is derived using a discounted cash flow approach which includes an evaluation of the underlying loan characteristics. The valuation model uses loan characteristics which includes product type, maturity dates and the underlying interest rate of the portfolio. This information is input into the valuation models along with various forecast valuation assumptions including prepayment forecasts, to determine the discount rate. These assumptions are derived from internal and third party sources. Since the valuation is derived from model-based techniques, ASB includes loans held for investment within Level 3 of the valuation hierarchy.

Collateral dependent loans. Collateral dependent loans have been adjusted to fair value. When a loan is identified as collateral dependent, the Company measures the impairment using the current fair value of the collateral, less selling costs. Depending on the characteristics of a loan, the fair value of collateral is generally estimated by obtaining external appraisals, but in some cases, the value of the collateral may be estimated as having little or no value. Non-real estate collateral may be valued using an appraisal, net book value per the borrower's financial statements, or aging reports, adjusted or discounted based on management's historical knowledge, changes in market conditions from the time of the valuation and management's expertise and knowledge of the client and client's business, resulting in a Level 3 fair value classification. If it is determined that the value of the collateral dependent loan is less than its recorded investment, the Company recognizes this impairment and adjusts the carrying value of the loan to fair value through the allowance for credit losses.

Real estate acquired in settlement of loans. Foreclosed assets are initially measured at fair value (less estimated costs to sell) and subsequently measured at the lower of the carrying value or fair value less selling costs. Fair values are generally based upon appraisals or independent market prices that are periodically updated subsequent to classification as real estate owned. Such adjustments typically result in a Level 3 classification of the inputs for determining fair value. ASB estimates the fair value of collateral-dependent loans and real estate owned using the sales comparison approach.

Mortgage servicing rights. MSRs are capitalized at fair value based on market data at the time of sale and accounted for in subsequent periods at the lower of amortized cost or fair value. MSRs are evaluated for impairment at each reporting date. ASB's MSRs are stratified based on predominant risk characteristics of the underlying loans including loan type and note rate. For each stratum, fair value is calculated by discounting expected net income streams using discount rates that reflect industry pricing for similar assets. Expected net income streams are estimated based on industry assumptions regarding prepayment expectations and income and expenses associated with servicing residential mortgage loans for others. Impairment is recognized through a valuation allowance for each stratum when the carrying amount exceeds fair value, with any associated provision recorded as a component of loan servicing fees included in "Revenues - bank" in the consolidated statements of income. A direct write-down is recorded when the recoverability of the valuation allowance is deemed to be unrecoverable. ASB compares the fair value of MSRs to an estimated value calculated by an independent third-party. The third-party relies on both published and unpublished sources of market related assumptions and its own experience and expertise to arrive at a value. ASB uses the third-party value only to assess the reasonableness of its own estimate. ASB includes MSRs within Level 3 of the valuation hierarchy.

Time deposits. The fair value of fixed-maturity certificates of deposit was estimated by discounting the future cash flows using the rates currently offered for FHLB advances of similar remaining maturities. Deposit liabilities are classified in Level 2 of the valuation hierarchy.

Other borrowings. For advances, repurchase agreements and other bank borrowings, fair value is estimated using quantitative discounted cash flow models that require the use of interest rate inputs that are currently offered for advances, repurchase agreements and other bank borrowings of similar remaining maturities. The majority of market inputs are actively quoted and can be validated through external sources, including broker market transactions and third party pricing services.

Long-term debt—other than bank. Fair value of fixed-rate long-term debt—other than bank was obtained from third-party financial services providers based on the current rates offered for debt of the same or similar remaining maturities and from discounting the future cash flows using the current rates offered for debt of the same or similar risks, terms, and remaining maturities. The carrying amount of floating rate long-term debt—other than bank approximated fair value because of the short-term interest reset periods. Long-term debt—other than bank is classified in Level 2 of the valuation hierarchy.

Interest rate lock commitments (IRLCs). The estimated fair value of commitments to originate residential mortgage loans for sale is based on quoted prices for similar loans in active markets. IRLCs are classified as Level 2 measurements.

Forward sales commitments. To be announced (TBA) mortgage-backed securities forward commitments are classified as Level 1, and consist of publicly-traded debt securities for which identical fair values can be obtained through quoted market prices in active exchange markets. The fair values of ASB's best efforts and mandatory delivery loan sale commitments are determined using quoted prices in the market place that are observable and are classified as Level 2 measurements.

Interest rate swaps. The Company measures its interest rate swaps at fair value. The fair values of the Company's interest rate swaps are based on the estimated amounts that the Company would receive or pay to terminate the contracts at the reporting date and are determined using interest rate pricing models and interest rate related observable inputs. The fair values of the Company's interest rate swaps are classified as a Level 2 measurements.

The following table presents the carrying or notional amount, fair value, and placement in the fair value hierarchy of the Company's financial instruments.

		Estimated fair value			
(in thousands)	Carrying or notional amount	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
December 31, 2023					
Financial assets					
HEI consolidated					
Available-for-sale investment securities	$ 1,136,439	$ —	$ 1,122,081	$ 14,358	$ 1,136,439
Held-to-maturity investment securities	1,201,314	—	1,103,668	—	1,103,668
Loans, net	6,121,606	—	15,176	5,723,823	5,738,999
Mortgage servicing rights	8,169	—	—	18,722	18,722
Derivative assets	16,880	—	1,058	—	1,058
Financial liabilities					
HEI consolidated					
Deposit liabilities	1,063,907	—	1,053,101	—	1,053,101
Other bank borrowings	750,000	—	747,508	—	747,508
Long-term debt, net—other than bank	2,842,429	—	2,133,225	—	2,133,225
Derivative liabilities	28,449	18	303	—	321
Hawaiian Electric consolidated					
Long-term debt, net	1,934,277	—	1,385,025	—	1,385,025
December 31, 2022					
Financial assets					
HEI consolidated					
Available-for-sale investment securities	$ 1,429,667	$ —	$ 1,414,765	$ 14,902	$ 1,429,667
Held-to-maturity investment securities	1,251,747	—	1,150,971	—	1,150,971
Loans, net	5,907,514	—	821	5,453,381	5,454,202
Mortgage servicing rights	9,047	—	—	17,646	17,646
Derivative assets	16,220	18	1,330	—	1,348
Financial liabilities					
HEI consolidated					
Deposit liabilities	611,718	—	597,617	—	597,617
Short-term borrowings—other than bank	172,568	—	172,568	—	172,568
Other bank borrowings	695,120	—	695,095	—	695,095
Long-term debt, net—other than bank	2,384,980	—	2,122,605	—	2,122,605
Derivative liabilities	22,949	—	472	—	472
Hawaiian Electric consolidated					
Short-term borrowings	87,967	—	87,967	—	87,967
Long-term debt, net	1,684,816	—	1,487,496	—	1,487,496

Fair value measurements on a recurring basis. Assets and liabilities measured at fair value on a recurring basis were as follows:

December 31	**2023**			**2022**		
	Fair value measurements using			**Fair value measurements using**		
(in thousands)	**Level 1**	**Level 2**	**Level 3**	**Level 1**	**Level 2**	**Level 3**
Available-for-sale investment securities (bank segment)						
Mortgage-backed securities — issued or guaranteed by U.S. Government agencies or sponsored agencies	$ —	$ 1,077,168	$ —	$ —	$1,292,968	$ —
U.S. Treasury and federal agency obligations	—	12,010	—	—	81,063	—
Corporate bonds	—	32,903	—	—	40,734	—
Mortgage revenue bonds	—	—	14,358	—	—	14,902
	$ —	$ 1,122,081	$ 14,358	$ —	$1,414,765	$ 14,902
Derivative assets						
Interest rate lock commitments (bank segment)[1]	$ —	$ 86	$ —	$ —	$ 9	$ —
Forward commitments (bank segment)[1]	—	—	—	18	—	—
Interest rate swap (Other segment)[2]	—	972	—	—	1,321	—
	$ —	$ 1,058	$ —	$ 18	$ 1,330	$ —
Derivative liabilities						
Forward commitments (bank segment)[1]	$ 18	$ —	$ —	$ —	$ —	$ —
Interest rate swap (Other segment)[2]	—	303	—	—	472	—
	$ 18	$ 303	$ —	$ —	$ 472	$ —

1 Derivatives are carried at fair value in other assets or other liabilities in the balance sheets with changes in value included in mortgage banking income.

2 Derivatives are included in other assets and other liabilities in the balance sheets.

There were no transfers of financial assets and liabilities between Level 1 and Level 2 of the fair value hierarchy during the years ended December 31, 2023 and 2022.

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis were as follows:

(in thousands)	**2023**	**2022**
Mortgage revenue bonds		
Balance, January 1	$ 14,902	$ 15,427
Principal payments received	(544)	(525)
Purchases	—	
Unrealized gain (loss) included in other comprehensive income	—	—
Balance, December 31	$ 14,358	$ 14,902

Mortgage revenue bonds are issued by the Department of Budget and Finance of the State of Hawaii. The Company estimates the fair value by using a discounted cash flow model to calculate the present value of estimated future principal and interest payments. The unobservable input used in the fair value measurement is the weighted average discount rate. As of December 31, 2023, the weighted average discount rate was 5.67% which was derived by incorporating a credit spread over the one month SOFR. Significant increases (decreases) in the weighted average discount rate could result in a significantly lower (higher) fair value measurement.

Fair value measurements on a nonrecurring basis. Certain assets and liabilities are measured at fair value on a nonrecurring basis and therefore are not included in the tables above. These measurements primarily result from assets carried at the lower of cost or fair value or from impairment of individual assets. As of December 31, 2022 and 2021, there were no financial instruments measured at fair value on a nonrecurring basis.

For 2023 and 2022, there were no adjustments to fair value for ASB's loans held for sale.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

HEI and Hawaiian Electric: None

ITEM 9A. CONTROLS AND PROCEDURES

HEI:

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Scott W. H. Seu, HEI Chief Executive Officer (CEO), and Scott T. DeGhetto, HEI Chief Financial Officer (CFO), have evaluated the disclosure controls and procedures of HEI as of December 31, 2023. Based on their evaluation, as of December 31, 2023, they have concluded that the disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) were effective in ensuring that information required to be disclosed by HEI in reports HEI files or submits under the Securities Exchange Act of 1934:

(1) is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission rules and forms, and

(2) is accumulated and communicated to HEI management, including HEI's CEO and CFO, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) and Rule 15d-15(f) promulgated under the Securities Exchange Act of 1934, as amended. The Company's internal control over financial reporting was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as of December 31, 2023 based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2023.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2023 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in its report which appears herein.

Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting during the quarter ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Hawaiian Electric:

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Shelee M. T. Kimura, Hawaiian Electric CEO, and Paul K. Ito, Hawaiian Electric CFO, have evaluated the disclosure controls and procedures of Hawaiian Electric as of December 31, 2023. Based on their evaluation, as of December 31, 2023, they have concluded that the disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) were effective in ensuring that information required to be disclosed by Hawaiian Electric in reports Hawaiian Electric files or submits under the Securities Exchange Act of 1934:

(1) is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission rules and forms, and

(2) is accumulated and communicated to Hawaiian Electric management, including Hawaiian Electric's CEO and CFO, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) and Rule 15d-15(f) promulgated under the Securities Exchange Act of 1934, as amended. Hawaiian Electric's internal control over financial reporting was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of Hawaiian Electric's internal control over financial reporting as of December 31, 2023 based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO. Based on this evaluation, management has concluded that Hawaiian Electric's internal control over financial reporting was effective as of December 31, 2023.

Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting during the quarter ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, Hawaiian Electric's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

During the three months ended December 31, 2023, none of the Company's directors or officers or the Company adopted or terminated a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement," in each case as defined in Item 408(a) of Regulation S-K.

The Company is reporting the following information in lieu of reporting on a Current Report on Form 8-K:

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers

(e) On February 23, 2024, the Compensation and Human Capital Management Committee of Hawaiian Electric Industries, Inc. (the "Company") recommended board of director approval of three separate executive severance arrangements that provide benefits for the Company's executive officers who are employed at each of the Company, Hawaiian Electric Company, Inc. ("Hawaiian Electric"), and American Savings Bank, F.S.B. ("American Savings") and also recommended approval of a Retention Bonus Agreement between American Savings and Ann Teranishi (the "Retention Agreement"). On February 23, 2024, the Board of Directors of the Company approved the Hawaiian Electric Industries, Inc. Executive Severance Plan (the "HEI Plan"), the Board of Directors of Hawaiian Electric approved the Hawaiian Electric Company, Inc. Executive Severance Plan (the "Hawaiian Electric Plan") and the Board of Directors of American Savings approved the Executive Severance Board Policy (the "American Savings Policy" and collectively, the "Severance Plans") and the Retention Agreement. On February 23, 2024, American Savings and Ms. Teranishi each executed the Retention Agreement. The Severance Plans and Retention Agreement are described in more detail below.

The HEI Plan and Hawaiian Electric Plan

The HEI Plan and Hawaiian Electric Plan are substantially the same and provide for the payment of severance and other benefits to eligible executives in the event of a termination of employment by the respective company without cause or by the eligible executive for good reason, with each of cause and good reason as defined in the respective severance plan (each, an "HEI/Hawaiian Electric Qualifying Termination"), in each case in lieu of benefits provided by any other company severance arrangement, provided, however, that if the eligible executive is party to a change in control agreement, the severance plans will not apply to an HEI/Hawaiian Electric Qualifying Termination in the event of a change in control whereby benefits are provided to such eligible executive pursuant to such change in control agreement.

In the event of an HEI/Hawaiian Electric Qualifying Termination and subject to employee confidentiality and non-disparagement obligations and execution of a general release of claims, the HEI Plan and Hawaiian Electric Plan each provide for, as it relates to HEI's executive officers, the following payments and benefits: (i) a lump sum payment in an amount equal to two times the annualized base salary as of the date of termination for the CEO of the respective company, including currently Scott Seu at HEI and Shelee Kimura at Hawaiian Electric, and one and one-half times for Executive Vice Presidents and Senior Vice Presidents, including currently Scott DeGhetto and Kurt Murao at HEI, (ii) a lump sum payment in an amount equal to the eligible employee's pro-rata annual target bonus for the year of termination, (iii) accelerated pro-rata vesting of long-term equity or cash awards, with performance-based awards vesting at target, (iv) payment of the employer portion of any COBRA premium for a period of twenty-four months for Mr. Seu and Ms. Kimura and eighteen months for Messrs. DeGhetto and Murao, and (v) outplacement services for six months in an amount not to exceed $10,000.

American Savings Policy

The American Savings Policy provides for the payment of severance and other benefits to eligible executives in the event of a termination of employment by American Savings without cause or, in the event of a change in control of American Savings, by American Savings without cause or by the eligible executives for good reason, with each of cause and good reason as defined in the American Savings Policy (each, an "ASB Qualifying Termination"). In the event of an ASB Qualifying Termination, the American Savings Policy provides the CEO of American Savings, currently Ann Teranishi, the following payments and benefits: (i) a lump sum payment in an amount equal to one and one-half times the highest annual base salary paid during the three years preceding the date of termination, (ii) continued participation in the company's health benefit plans for a period of eighteen months, and (iii) in the case of an ASB Qualifying Termination within two years of the date of a change in control, accelerated vesting of restricted stock and restricted cash awards, provided that, where it is applicable, Ms. Teranishi's existing change in control agreement will govern the applicable severance benefits in lieu of those provided under the American Savings Policy.

Retention Agreement

The Retention Agreement provides that Ms. Teranishi shall receive retention bonus payments totaling one and one-half times Ms. Teranishi's base salary as of January 1, 2024 ("Retention Bonus") paid in five equal installments every six months beginning on March 15, 2024, subject to Ms. Teranishi continuing employment in good standing through each respective payment date, provided that if Ms. Teranishi's employment is terminated (i) by American Savings for any reason other than for cause or (ii) following a change in control, other than (A) by American Savings for cause, (B) by reason of death or disability, or (C) by Ms. Teranishi without good reason (each as defined in the Retention Agreement), all outstanding Retention Bonus payments will be accelerated and paid as soon as practicable following the date of termination. In addition, in the event that Ms. Teranishi's employment is involuntarily terminated without cause or she resigns for good reason, Ms. Teranishi will be awarded the benefits for which she is eligible under the American Savings Policy in accordance with the terms of that policy.

The foregoing descriptions of the Severance Plans and Retention Agreement are qualified in their entirety by the full terms of the HEI Plan, Hawaiian Electric Plan, American Savings Policy and Retention Agreement, copies of which are attached to this Form 10-K as Exhibit 10.19, Exhibit 10.20, Exhibit 10.21 and Exhibit 10.22, respectively, and incorporated herein by reference.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

HEI and Hawaiian Electric: None

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

HEI:

Information regarding HEI's executive officers is provided in the "Information about our Executive Officers" section following Item 4 of this report.

The remaining information required by this Item 10 for HEI is incorporated herein by reference to the following sections in HEI's 2024 Proxy Statement:

- "Director Nominees for Election"
- "Continuing Directors"
- "Committees of the Board" (portions regarding whether HEI has an audit & risk committee and identifying its members; no other portion of the Committees of the Board section is incorporated herein by reference)
- "Audit & Risk Committee Report" (portion identifying audit & risk committee financial experts who serve on the HEI Audit & Risk Committee only; no other portion of the Audit & Risk Committee Report is incorporated herein by reference)

Family relationships; director arrangements

There are no family relationships between any HEI director or director nominee and any other HEI director or director nominee or any HEI executive officer. There are no arrangements or understandings between any HEI director or director nominee and any other person pursuant to which such director or director nominee was selected. Information required to be reported under this caption is incorporated herein by reference to the "Other relationships and related person transactions" section in HEI's 2024 Proxy Statement.

Delinquent Section 16(a) reports

Information required to be reported under this caption is incorporated herein by reference to the "Delinquent Section 16(a) Reports" section in HEI's 2024 Proxy Statement.

Code of Conduct

HEI has a Corporate Code of Conduct that includes a code of ethics applicable to, among others, its principal executive officer, principal financial officer and principal accounting officer. The Corporate Code of Conduct is available on HEI's website at www.hei.com. HEI intends to disclose the information required by Form 8-K, Item 5.05, "Amendments to the Registrant's Code of Ethics, or Waiver of a Provision of the Code of Ethics," through this website and such information will remain available on this website for at least a 12-month period.

Hawaiian Electric:

The information required by this Item 10 for Hawaiian Electric is incorporated herein by reference to pages 1 to 6 of Hawaiian Electric Exhibit 99.1.

ITEM 11. EXECUTIVE COMPENSATION

HEI:

The information required by this Item 11 for HEI is incorporated herein by reference to the information relating to executive and director compensation in HEI's 2024 Proxy Statement.

Hawaiian Electric:

The information required by this Item 11 for Hawaiian Electric is incorporated herein by reference to:

- Pages 7 to 34 of Hawaiian Electric Exhibit 99.1 to this Form 10-K;
- The discussion of "2022-24 Long-Term Incentive Plan" at pages 18 to 19 of Hawaiian Electric's Exhibit 99.1 to Annual Report on Form 10-K for the year ended December 31, 2022; and
- Information concerning compensation paid to directors of Hawaiian Electric who are also directors of HEI under the section of HEI's 2024 Proxy Statement entitled, "Director Compensation."

COMPENSATION & HUMAN CAPITAL MANAGEMENT COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

HEI:

The information required to be reported under this caption for HEI is incorporated herein by reference to the "Compensation & Human Capital Management Interlocks and Insider Participation" section in HEI's 2024 Proxy Statement.

Hawaiian Electric:

The information required to be reported under this caption for Hawaiian Electric is incorporated herein by reference to page 23 of Hawaiian Electric Exhibit 99.1.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

HEI:

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS

The information required by this Item 12 for HEI is incorporated herein by reference to the "Stock Ownership Information-Security Ownership of Certain Beneficial Owners" section in HEI's 2024 Proxy Statement.

Equity Compensation Plan Information

Information as of December 31, 2023 about HEI Common Stock that may be issued under all of the Company's equity compensation plans was as follows:

Plan category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (2)
Equity compensation plans approved by shareholders	536,151	$ —	2,288,689
Equity compensation plans not approved by shareholders	—	—	—
Total	536,151	$ —	2,288,689

(1) This column includes the number of shares of HEI Common Stock which may be issued under the HEI 2010 Equity and Incentive Plan, as amended (EIP) on account of awards outstanding as of December 31, 2023, including:

EIP	
132,369	Restricted stock units plus estimated compounded dividend equivalents (if applicable)*
403,782	Shares to be issued in February 2024, 2025 and 2026 under the 2021-23, 2022-24 and 2023-25 LTIPs, respectively, plus compounded dividend equivalents**
536,151	

* Under the EIP as of December 31, 2023, RSUs count as one share against shares available for issuance less estimated shares withheld for taxes under net share settlement, which again become available for the issuance of new shares on a one-to-one basis.

** For shares to be issued in February 2025 and 2026 under the 2022-24 and 2023-25 LTIPs, respectively, the number of shares to be issued assumes that applicable performance goals are achieved and shares are issued at maximum levels, reduced by the estimated number of shares withheld for taxes.

(2) This represents the number of shares available as of December 31, 2023 for future awards, including 2,120,512 shares available for future awards under the EIP and 168,177 shares available for future awards under the 2011 Nonemployee Director Plan.

Hawaiian Electric:

The information required by this Item 12 for Hawaiian Electric is incorporated herein by reference to pages 34 to 35 of Hawaiian Electric Exhibit 99.1.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

HEI:

The information required by this Item 13 for HEI is incorporated herein by reference to the sections relating to related person transactions and director independence in HEI's 2024 Proxy Statement.

Hawaiian Electric:

The information required by this Item 13 for Hawaiian Electric is incorporated herein by reference to pages 35 to 36 of Hawaiian Electric Exhibit 99.1.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

HEI:

The information required by this Item 14 for HEI is incorporated herein by reference to the relevant information in the Audit & Risk Committee Report in HEI's 2024 Proxy Statement (but no other part of the "Audit & Risk Committee Report" is incorporated herein by reference).

Hawaiian Electric:

The information required by this Item 14 for Hawaiian Electric is incorporated herein by reference to page 37 of Hawaiian Electric Exhibit 99.1.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) Financial statements

See Item 8 for the Consolidated Financial Statements of HEI and Hawaiian Electric.

(a)(2) and (c) Financial statement schedules

The following financial statement schedules for HEI and Hawaiian Electric are included in this report on the pages indicated below:

		Page/s in Form 10-K	
		HEI	Hawaiian Electric
Schedule I	Condensed Financial Information of Registrant, Hawaiian Electric Industries, Inc. (Parent Company) at December 31, 2023 and 2022 and for the years ended December 31, 2023, 2022 and 2021	198-200	NA
Schedule II	Valuation and Qualifying Accounts, Hawaiian Electric Industries, Inc. and subsidiaries and Hawaiian Electric Company, Inc. and subsidiaries for the years ended December 31, 2023, 2022 and 2021	202	202

NA Not applicable.

Certain schedules, other than those listed, are omitted because they are not required, or are not applicable, or the required information is shown in the Consolidated Financial Statements.

ITEM 16. FORM 10-K SUMMARY

HEI and Hawaiian Electric: None

Hawaiian Electric Industries, Inc.

SCHEDULE I — CONDENSED FINANCIAL INFORMATION OF REGISTRANT
HAWAIIAN ELECTRIC INDUSTRIES, INC. (PARENT COMPANY)
CONDENSED BALANCE SHEETS

December 31	2023	2022
(dollars in thousands)		
Assets		
Cash and cash equivalents	$ 136,510	$ 611
Restricted cash	6,216	—
Accounts receivable	9,374	946
Notes receivable from subsidiaries	4,821	1,140
Property, plant and equipment, net	1,495	1,877
Deferred income tax assets	9,889	12,107
Other assets and intercompany receivables	22,942	17,695
Investments in subsidiaries, at equity	3,025,086	2,894,856
Total assets	$ 3,216,333	$ 2,929,232
Liabilities and shareholders' equity		
Liabilities		
Accounts payable	$ 8,272	$ 797
Interest payable	3,397	1,554
Commercial paper	—	49,683
Short-term debt, net	—	34,918
Long-term debt, net	782,005	557,874
Retirement benefits liability	21,876	21,983
Other	55,942	59,924
Total liabilities	871,492	726,733
Shareholders' equity		
Preferred stock, no par value, authorized 10,000,000 shares; issued: none	—	—
Common stock, no par value, authorized 200,000,000 shares; issued and outstanding: 110,151,798 shares and 109,470,795 shares at December 31, 2023 and 2022, respectively	1,707,471	1,692,697
Retained earnings	926,720	845,830
Accumulated other comprehensive loss, net of tax benefits	(289,350)	(336,028)
Total shareholders' equity	2,344,841	2,202,499
Total liabilities and shareholders' equity	$ 3,216,333	$ 2,929,232

SCHEDULE I — CONDENSED FINANCIAL INFORMATION OF REGISTRANT (continued)
HAWAIIAN ELECTRIC INDUSTRIES, INC. (PARENT COMPANY)
CONDENSED STATEMENTS OF INCOME

Years ended December 31	2023	2022	2021
(in thousands)			
Revenues	$ 268	$ 320	$ 105
Equity in net income of subsidiaries	239,532	273,076	278,743
Expenses			
Operating, administrative and general	22,962	20,850	24,006
Depreciation of property, plant and equipment	402	399	414
Taxes, other than income taxes	864	732	514
Total expenses	24,228	21,981	24,934
Operating income	215,572	251,415	253,914
Retirement defined benefits credit (expense)—other than service costs	289	147	(114)
Interest expense	32,630	21,997	18,444
Interest income	(2,651)	—	—
Income before income tax benefits	185,304	229,271	235,584
Income tax benefits	13,934	11,867	10,582
Net income	$ 199,238	$ 241,138	$ 246,166

HAWAIIAN ELECTRIC INDUSTRIES, INC. (PARENT COMPANY)
STATEMENTS OF COMPREHENSIVE INCOME
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

Incorporated by reference are HEI and Subsidiaries' Statements of Consolidated Comprehensive Income and Consolidated Statements of Changes in Shareholders' Equity in Part II, Item 8.

Hawaiian Electric Industries, Inc.

SCHEDULE I — CONDENSED FINANCIAL INFORMATION OF REGISTRANT (continued)
HAWAIIAN ELECTRIC INDUSTRIES, INC. (PARENT COMPANY)
CONDENSED STATEMENTS OF CASH FLOWS

Years ended December 31	2023	2022	2021
(in thousands)			
Net cash provided by operating activities	$ 131,873	$ 167,150	$ 154,151
Cash flows from investing activities			
Increase in note receivable from subsidiary	(3,542)	(1,140)	—
Capital expenditures	(21)	(224)	(10)
Investments in subsidiaries	(12,246)	(50,629)	(76,232)
Other	610	1,662	180
Net cash used in investing activities	(15,199)	(50,331)	(76,062)
Cash flows from financing activities			
Net decrease in short-term borrowings with original maturities of three months or less	(49,683)	(4,315)	(10,493)
Proceeds from issuance of short-term debt	65,000	35,000	—
Repayment of short-term debt	(100,000)	—	(15,000)
Proceeds from issuance of long-term debt	100,000	160,000	150,000
Repayment of long-term debt	(50,000)	(150,000)	(50,000)
Proceeds from issuance of revolving credit facility	175,000	—	—
Withheld shares for employee taxes on vested share-based compensation	(2,371)	(3,165)	(2,006)
Net proceeds from issuance of common stock	1,223	—	—
Common stock dividends	(112,957)	(153,229)	(148,643)
Other	(771)	(978)	(1,767)
Net cash provided by (used in) financing activities	25,441	(116,687)	(77,909)
Net increase in cash and equivalents	142,115	132	180
Cash, cash equivalents and restricted cash, January 1	611	479	299
Cash, cash equivalents and restricted cash December 31	142,726	611	479
Less: restricted cash	(6,216)	—	—
Cash and cash equivalents December 31	$ 136,510	$ 611	$ 479

NOTES TO CONDENSED FINANCIAL INFORMATION

Basis of Presentation

The "Notes to Consolidated Financial Statements" in Part II, Item 8 should be read in conjunction with the above HEI (Parent Company) financial statements. All HEI subsidiaries are reflected in the Condensed Financial Statements under the equity method. Income taxes for equity method investments are included in "Equity in net income of subsidiaries."

Long-term debt

The components of long-term debt, net, were as follows:

December 31	2023	2022
(dollars in thousands)		
HEI 3.99% senior notes, paid in 2023	$ —	$ 50,000
HEI 4.58% senior notes, due 2025	50,000	50,000
HEI 4.72% senior notes, due 2028	100,000	100,000
HEI 2.82% senior notes, due 2028	24,000	24,000
HEI 2.48% senior notes, due 2028	30,000	30,000
HEI 6.04% senior notes, due 2028	39,000	—
HEI 2.98% senior notes, due 2030	50,000	50,000
HEI 3.15% senior notes, due 2031	51,000	51,000
HEI 2.78% senior notes, due 2031	25,000	25,000
HEI 2.98% senior notes, due 2032	30,000	30,000
HEI 5.43% senior notes, due 2032	75,000	75,000
HEI 6.10% senior notes, due 2033	61,000	—
HEI 5.43% senior notes, due 2034	35,000	35,000
HEI 3.74% senior notes, due 2051	20,000	20,000
HEI 3.94% senior notes, due 2052	20,000	20,000
HEI revolving credit facility SOFR + 1.80% due 2026 to 2027[1]	175,000	—
Less unamortized debt issuance costs	(2,995)	(2,126)
Long-term debt, net	$ 782,005	$ 557,874

[1] As of December 31, 2023, the interest rate is based on term SOFR plus the applicable margin of 1.75%, reduced by a 0.05% sustainability margin adjustment, plus an additional 0.10% spread adjustment; the weighted-average interest rate was 7.19%..

The aggregate payments of principal required within five years after December 31, 2023 on long-term debt are nil in 2024, $50 million in 2025, $18 million in 2026, $157 million in 2027, $193 million for 2028, and $367 million thereafter.

Income taxes

The Company's financial reporting policy for income tax allocations is based upon a separate entity concept whereby each subsidiary provides income tax expense (or benefits) as if each were a separate taxable entity. The difference between the aggregate separate tax return income tax provisions and the consolidated financial reporting income tax provision is charged or credited to HEI's separate tax provision.

Dividends from HEI subsidiaries

In 2023, 2022 and 2021, cash dividends received from subsidiaries were $168 million, $168 million and $172 million, respectively.

Supplemental disclosures of noncash activities

In 2023, 2022 and 2021, $2.3 million, $1.9 million and $2.1 million, respectively, of HEI accounts receivable from ASB Hawaii were reduced with a corresponding reduction in HEI notes payable to ASB Hawaii in noncash transactions.

In 2023, 2022 and 2021, $2.3 million, $1.9 million and $2.1 million, respectively, were contributed as equity by HEI into ASB Hawaii with a corresponding increase in HEI notes payable to ASB Hawaii in noncash transactions.

Under the HEI DRIP, common stock dividends reinvested by shareholders in HEI common stock in noncash transactions was $5.4 million for 2023 and nil for 2022 and 2021. HEI satisfied the share purchase requirements of the DRIP in 2023, 2022 and 2021 through open market purchases of its common stock rather than new issuances.

Hawaiian Electric Industries, Inc. and subsidiaries
and Hawaiian Electric Company, Inc. and subsidiaries

SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS

Years ended December 31, 2023, 2022 and 2021

Col. A	Col. B	Col. C		Col. D	Col. E
(in thousands)		Additions			
Description	Balance at beginning of period	Charged to costs and expenses	Charged to other accounts	Deductions	Balance at end of period
2023					
Allowance for uncollectible accounts – electric utility	$ 6,111	$ 8,161	$ (665) (a)	$ 9,047 (b)	$ 4,560
2022					
Allowance for uncollectible accounts – electric utility	$ 26,100	$ 6,028	$ (14,626) (a)	$ 11,391 (b)	$ 6,111
2021					
Allowance for uncollectible accounts – electric utility	$ 17,809	$ 4,183	$ 11,795 (a)	$ 7,687 (b)	$ 26,100

(a) Includes ($2,700) and ($16,200) of recoveries from previous deferred bad debt expense for 2023 and 2022, respectively, and $10,700 of bad debt expenses for 2021, that have been deferred to regulatory assets pursuant to a PUC order as the recovery is probable. Total deferred bad debt expense of $10,700 in 2021 is net of a $2,000 reversal associated with customer bill credits to be provided under the Utilities' bill forgiveness program.

(b) Bad debts charged off.

(a)(3) and (b) Exhibits

The exhibits listed for HEI and Hawaiian Electric are listed in the index under the headings "HEI" and "Hawaiian Electric," respectively, except that the exhibits listed under "Hawaiian Electric" are also exhibits for HEI.

EXHIBIT INDEX

The exhibits designated by an asterisk (*) are filed herewith. The exhibits not so designated are incorporated by reference to the indicated filing.

	Exhibit no.	Description	Form	File Number	Exhibit #	Filing date
	HEI:					
	3(i)	HEI's Amended and Restated Articles of Incorporation effective June 2, 2020.	10-Q	1-8503	3.1	8/6/20
	3(ii)	HEI's Amended and Restated Bylaws effective November 3, 2022.	8-K	1-8503	3	11/7/22
	4	Description of HEI Common Stock	10-K	1-8503	4	2/28/20
	4.1	Agreement to provide the SEC with instruments which define the rights of holders of certain long-term debt of HEI and its subsidiaries.	10-Q	1-8503	4.1	5/9/22
	4.2	Hawaiian Electric Industries Retirement Savings Plan, restatement effective October 6, 2022.	10-Q	1-8503	4	5/9/23
*	4.2(a)	Amendment 2023-1 to the Hawaiian Electric Industries Retirement Savings Plan, restatement effective August 1, 2023.				
	4.3	Master Trust Agreement dated as of September 4, 2012 between HEI and ASB and Fidelity Management Trust Company, as Trustee	10-Q	1-8503	4	11/8/12
	4.3(a)	Letter Amendment effective November 28, 2012 to Master Trust Agreement dated as of September 4, 2012 between HEI and ASB and Fidelity Management Trust Company.	10-K	1-8503	4.6(a)	2/19/13
	4.3(b)	Letter Amendment effective October 1, 2014 to Master Trust Agreement dated as of September 4, 2012 between HEI and ASB and Fidelity Management Trust Company.	10-Q	1-8503	4	11/6/14
	4.3(c)	First Amendment effective March 1, 2015 to Master Trust Agreement (dated as of September 4, 2012) between HEI and ASB and Fidelity Management Trust Company.	10-Q	1-8503	4	5/6/15
	4.3(d)	Letter Amendment effective August 3, 2015 to Master Trust Agreement (dated as of September 4, 2012) between HEI and ASB and Fidelity Management Trust Company.	10-K	1-8503	4.4(d)	3/1/18
	4.3(e)	Letter Amendment effective August 15, 2017 to Master Trust Agreement (dated September 4, 2012) between HEI and ASB and Fidelity Management Trust Company.	10-Q	1-8503	4	11/2/17
	4.3(f)	Second Amendment effective January 1, 2018 to Master Trust Agreement (dated September 4, 2012) between HEI and ASB and Fidelity Management Trust Company.	10-K	1-8503	4.4(f)	3/1/18
	4.3(g)	Letter of Direction effective January 2, 2018 to Master Trust Agreement (dated September 4, 2012) between HEI and ASB and Fidelity Management Trust Company.	10-K	1-8503	4.4(g)	3/1/18
	4.3(h)	Third Amendment effective July 1, 2018 to Master Trust Agreement (dated September 4, 2012) between HEI and ASB and Fidelity Management Trust Company.	10-Q	1-8503	4	8/3/18
	4.3(i)	Fourth Amendment effective June 26, 2019 to Master Trust Agreement (dated September 4, 2012) between HEI and ASB and Fidelity Management Trust Company.	S-8	333-232360	4.15	6/26/19
	4.3(j)	Letter Amendment effective November 1, 2019 to Master Trust Agreement (dated September 4, 2012) between HEI and ASB and Fidelity Management Trust Company.	10-K	1-8503	4.4(j)	2/28/20
	4.3(k)	Fifth Amendment effective March 1, 2020 to Master Trust Agreement (dated September 4, 2012) between HEI and ASB and Fidelity Management Trust Company	10-Q	1-8503	4.2	5/5/20
	4.3(l)	Letter Amendment effective October 15, 2021 to Master Trust Agreement (dated September 4, 2012) between HEI and ASB and Fidelity Management Trust Company	10-Q	1-8503	4	11/5/21
	4.3(m)	Letter Amendment effective November 1, 2022 to Master Trust Agreement (dated September 4, 2012) between HEI and ASB and Fidelity Management Trust Company.	10-Q	1-8503	4	11/7/22

	Exhibit no.	Description	Form	File Number	Exhibit #	Filing date
	4.3(n)	Letter Amendment effective January 1, 2023 to Master Trust Agreement (dated September 4, 2012) between HEI and ASB and Fidelity Management Trust Company.	10-K	1-8503	4.4(n)	2/27/23
	4.4	Hawaiian Electric Industries, Inc. Dividend Reinvestment and Stock Purchase Plan, as amended and restated, effective November 3, 2022.	S-3	333-268339	4.3	11/14/22
	4.5	American Savings Bank 401(k) Plan, restatement effective January 1, 2013.	10-K	1-8503	4.8	2/19/13
	4.5(a)	Amendment 2013-1 to the American Savings Bank 401(k) Plan, effective January 1, 2014.	10-K	1-8503	4.7(a)	2/23/16
	4.5(b)	Amendment 2019-1 to the American Savings Bank 401(k) Plan, effective as of May 6, 2019.	S-8	333-232361	4.5	6/26/19
	4.5(c)	Amendment 2020-1 to the American Savings Bank 401(k) Plan, effective as of January 1, 2020.	10-K	1-8503	4.1	2/28/20
	4.5(d)	Amendment 2021-1 to the American Savings Bank 401(k) Plan, executed on of October 4, 2021.	10-K	1-8503	4.6(d)	2/27/23
	4.5(e)	Amendment 2022-1 to the American Savings Bank 401(k) Plan, executed on June 8, 2022.	10-K	1-8503	4.6(e)	2/27/23
	4.5(f)	Amendment 2022-2 to the American Savings Bank 401(k) Plan, executed on December 5, 2022.	10-K	1-8503	4.6(f)	2/27/23
	4.5(g)	Amendment 2023-1 to the American Savings Bank 401(k) Plan, executed on January 12, 2023.	10-K	1-8503	4.6(g)	2/27/23
*	4.5(h)	Amendment 2023-2 to the American Savings Bank 401(k) Plan, executed on December 21, 2023.				
	10.1	Conditions for the Merger and Corporate Restructuring of Hawaiian Electric Company, Inc. dated September 23, 1982.	10-K	1-8503	10.1	2/28/07
	10.2	Regulatory Capital Maintenance/Dividend Agreement dated May 26, 1988, between HEI, HEIDI and the Federal Savings and Loan Insurance Corporation (by the Federal Home Loan Bank of Seattle).	8-K	1-8503	10.2	5/9/22
	10.3	OTS letter regarding release from Part II.B. of the Regulatory Capital Maintenance/Dividend Agreement dated May 26, 1988.	10-K	1-8503	10.3	5/9/22

HEI Exhibits 10.4 through 10.24 are management contracts or compensatory plans or arrangements required to be filed as exhibits pursuant to Item 15(b) of this report. HEI Exhibits 10.4 through 10.18 are also management contracts or compensatory plans or arrangements with Hawaiian Electric participants and HEI Exhibit 10.20 is a management contract or compensatory plan or arrangement with Hawaiian Electric participants.

Exhibit no.	Description	Form	File Number	Exhibit #	Filing date
10.4	HEI Executive Incentive Compensation Plan amended as of February 4, 2013.	10-K	1-8503	10.4	2/19/13
10.5	HEI Executives' Deferred Compensation Plan amended and restated effective January 1, 2019.	10-K	1-8503	10.5	2/28/19
10.6	Hawaiian Electric Industries, Inc. 2010 Equity and Incentive Plan, as amended and restated November 16, 2010.	10-K	1-8503	10.6	2/18/11
10.7	Hawaiian Electric Industries, Inc. 2010 Equity and Incentive Plan, as amended and restated February 14, 2014.	Proxy (DEF 14A)	1-8503	Appendix D	3/25/14
10.7(a)	Form of Non-Qualified Stock Option Agreement pursuant to 2010 Equity and Incentive Plan.	S-8	333-166737	4.4	5/11/10
10.7(b)	Form of Stock Appreciation Right Agreement pursuant to 2010 Equity and Incentive Plan.	S-8	333-166737	4.5	5/11/10
10.7(c)	Form of Restricted Shares Agreement pursuant to 2010 Equity and Incentive Plan.	S-8	333-166737	4.6	5/11/10
10.7(d)	Form of Performance Shares Agreement pursuant to 2010 Equity and Incentive Plan.	S-8	333-166737	4.7	5/11/10
10.7(e)	Form of Restricted Stock Unit Agreement, pursuant to 2010 Equity and Incentive Plan, as amended and restated February 5, 2021.	10-Q	1-8503	10	5/10/21
10.8	HEI Long-Term Incentive Plan amended and restated as of February 5, 2021.	10-K	1-8503	10.8	2/26/21
10.9	HEI Supplemental Executive Retirement Plan amended and restated as of January 1, 2009.	10-Q	1-8503	10.3	11/5/08
10.9(a)	Amendments to the HEI Supplemental Executive Retirement Plan Freezing Benefit Accruals Effective December 31, 2008.	10-K	1-8503	10.9(a)	2/27/09
10.10	HEI Excess Pay Plan amended and restated as of January 1, 2009.	10-K	1-8503	10.10	2/27/09

Exhibit no.	Description	Form	File Number	Exhibit #	Filing date
10.10(a)	HEI Excess Pay Plan Addendum for Constance H. Lau.	10-K	1-8503	10.10(a)	2/27/09
10.10(b)	Amendment No. 1 dated December 13, 2010 to January 1, 2009 Restatement of HEI Excess Pay Plan.	10-K	1-8503	10.10(c)	2/19/13
10.11	Form of Change in Control Agreement.	10-K	1-8503	10.11	2/27/09
10.12	Nonemployee Director Retirement Plan, effective as of October 1, 1989.	10-K	1-8503	10.12	5/9/22
10.13	HEI 2011 Nonemployee Director Stock Plan, as amended effective October 31, 2019.	10-K	1-8503	10.13	2/28/20
10.14	HEI Non-Employee Directors' Deferred Compensation Plan.	10-Q	1-8503	10.5	11/5/08
10.15	Executive Death Benefit Plan of HEI and Participating Subsidiaries restatement effective as of January 1, 2009.	10-Q	1-8503	10.6	11/5/08
10.15(a)	Resolution of the Compensation Committee of the Board of Directors of Hawaiian Electric Industries, Inc. Re: Adoption of Amendment No. 1 to January 1, 2009 Restatement of the Executive Death Benefit Plan.	10-Q	1-8503	10.1	11/2/09
10.16	Amended and Restated Severance Pay Plan for Management Employees of Hawaiian Electric Industries, Inc. and Executive Employees of Affiliates, effective as of April 2, 2018.	10-Q	1-8503	10	8/3/18
10.17	Hawaiian Electric Industries, Inc. Executives' Deferred Compensation Plan effective on January 1, 2009.	10-Q	1-8503	10.2	11/5/08
10.18	Form of Indemnity Agreement (HEI, Hawaiian Electric and ASB with their respective directors and HEI with certain of its senior officers).	10-Q	1-8503	10.1	11/8/12
* 10.19	Hawaiian Electric Industries, Inc. Executive Severance Plan effective February 23, 2024.				
* 10.20	Hawaiian Electric Company, Inc. Executive Severance Plan effective February 23, 2024.				
* 10.21	American Savings Bank F.S.B. Executive Severance Board Policy effective February 23, 2024.				
* 10.22	Retention Bonus Agreement between American Savings Bank F.S.B. and Ann Teranishi dated as of February 23, 2024.				
* 10.23	American Savings Bank Select Deferred Compensation Plan (Restatement Effective January 1, 2024).				
10.24	American Savings Bank Supplemental Executive Retirement, Disability, and Death Benefit Plan, effective January 1, 2009.	10-Q	1-8503	10.8	11/5/08
10.24(a)	Amendments to the American Savings Bank Supplemental Executive Retirement, Disability, and Death Benefit Plan Freezing Benefit Accruals Effective December 31, 2008.	10-K	1-8503	10.19(b)	2/27/09
10.25(a)***	Third Amended and Restated Credit Agreement, dated as of May 14, 2021, among Hawaiian Electric Industries, Inc., as Borrower, the Lenders Party Hereto, and Bank of America, N.A. and U.S. Bank National Association, as Co-Syndication Agents, and Wells Fargo Bank, National Association, MUFG Union Bank, N.A., Barclays Bank PLC, Bank of Hawaii and The Toronto-Dominion Bank, New York Branch, as Co-Documentation Agents, and JPMorgan Chase Bank, N.A., as Administrative Agent, Swingline Lender and Issuing Bank, and JPMorgan Chase Bank, N.A. and Bank of America, N.A. as Sustainability Structuring Agents and JPMorgan Chase Bank, N.A., BofA Securities, Inc. and U.S. Bank National Association, as Joint Lead Arrangers and Joint Book Runners.	10-Q	1-8503	10.2	8/9/21
10.25(b)***	Amendment No. 1 dated as of April 21, 2023 to the Third Amended and Restated Credit Agreement, dated as of May 14, 2021.	10-Q	1-8503	10.1	8/7/23
* 21.1	HEI - Subsidiaries of the Registrant.				
* 23.1	Consent of Independent Registered Public Accounting Firm (Deloitte & Touche LLP).				
* 31.1	Certification Pursuant to Section 13a-14 of the Securities Exchange Act of 1934 of Scott W. H. Seu (HEI Chief Executive Officer).				
* 31.2	Certification Pursuant to Section 13a-14 of the Securities Exchange Act of 1934 of Scott T. DeGhetto (HEI Chief Financial Officer).				
* 32.1	HEI Certification Pursuant to 18 U.S.C. Section 1350.				
* 97	Policy Regarding the Recovery of Erroneously Awarded Incentive-Based Compensation.				
* 101.INS	XBRL Instance Document.				

Exhibit no.		Description	Form	File Number	Exhibit #	Filing date
*	101.SCH	XBRL Taxonomy Extension Schema Document.				
*	101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.				
*	101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.				
*	101.LAB	XBRL Taxonomy Extension Label Linkbase Document.				
*	101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.				
	104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).				
Hawaiian Electric:						
	3(i).1	Hawaiian Electric's Certificate of Amendment of Articles of Incorporation.	10-K	1-4955	3.1	3/31/89
	3(i).2	Articles of Amendment to Hawaiian Electric's Amended Articles of Incorporation.	10-K	1-4955	3.1(b)	3/27/90**
	3(i).3	Articles of Amendment to Hawaiian Electric's Amended Articles of Incorporation.	10-K	1-4955	3(i).4	3/23/99
	3(i).4	Articles of Amendment amending Article V of Hawaiian Electric's Amended Articles of Incorporation effective August 6, 2009.	10-Q	1-4955	3(i).4	8/7/09
	3(ii)	Hawaiian Electric's Amended and Restated Bylaws (as last amended August 6, 2010).	8-K	1-4955	3(ii)	8/9/10
	4	Description of Hawaiian Electric's Preferred Stock	10-K	1-4955	4	2/28/20
	4.1	Agreement to provide the SEC with instruments which define the rights of holders of certain long-term debt of Hawaiian Electric, Hawaii Electric Light and Maui Electric	10-K	1-4955	4.1	3/19/03
	4.2	Note Purchase Agreement among Hawaiian Electric and the Purchasers that are parties thereto, dated April 19, 2012.	8-K	1-4955	4(a)	4/23/12
	4.3	Note Purchase Agreement among Hawaiian Electric and the Purchasers that are parties thereto, dated September 13, 2012.	8-K	1-4955	4	9/14/12
	4.4	Note Purchase Agreement among Hawaiian Electric Company, Inc. and the Purchasers that are parties thereto, dated as of October 3, 2013.	8-K	1-4955	4(a)	10/7/13
	4.5	Note Purchase and Guaranty Agreement among Hawaiian Electric, Maui Electric Company, Limited and the Purchasers that are parties thereto, dated as of October 3, 2013.	8-K	1-4955	4(b)	10/7/13
	4.6	Note Purchase and Guaranty Agreement among Hawaiian Electric, Hawaii Electric Light Company, Inc. and the Purchasers that are parties thereto, dated as of October 3, 2013.	10-Q	1-4955	4	11/7/13
	4.7	Note Purchase Agreement among Hawaiian Electric Company, Inc. and the Purchasers that are parties thereto, dated as of October 15, 2015.	8-K	1-4955	4(a)	10/16/15
	4.8	Note Purchase and Guaranty Agreement among Hawaiian Electric, Maui Electric Company, Limited and the Purchasers that are parties thereto, dated as of October 15, 2015.	8-K	1-4955	4(b)	10/16/15
	4.9	Note Purchase and Guaranty Agreement among Hawaiian Electric, Hawaii Electric Light Company, Inc. and the Purchasers that are parties thereto, dated as of October 15, 2015.	8-K	1-4955	4(c)	10/16/15
	4.10	Note Purchase Agreement among Hawaiian Electric Company, Inc. and the Purchasers that are parties thereto, dated as of December 15, 2016.	8-K	1-4955	4	12/19/16
	10.1(a)	Amended and Restated Power Purchase Agreement between Hawaiian Electric and Kalaeloa Partners, L.P., dated October 29, 2021.	10-K	1-4955	10.1(j)	2/25/22
*	10.1(b)	Letter Agreement between Hawaiian Electric and Kalaeloa Partners, L.P., dated February 22, 2023.				
	10.2(a)	Power Purchase Agreement between Encogen Hawaii, L.P. and Hawaii Electric Light dated October 22, 1997 (but with the following attachments omitted: Attachment C, "Selected portions of the North American Electric Reliability Council Generating Availability Data System Data Reporting Instructions dated October 1996" and Attachment E, "Form of the Interconnection Agreement between Encogen Hawaii, L.P. and Hawaii Electric Light," which is provided in final form as Exhibit 10.6(b)).	10-K	1-4955	10.7	3/27/98
	10.2(b)	Interconnection Agreement between Encogen Hawaii, L.P. and Hawaii Electric Light dated October 22, 1997.	10-K	1-4955	10.7(a)	3/27/98
	10.2(c)	Amendment No. 1, executed on January 14, 1999, to Power Purchase Agreement between Encogen Hawaii, L.P. and Hawaii Electric Light dated October 22, 1997.	10-K	1-4955	10.7(b)	3/23/99

Exhibit no.	Description	Form	File Number	Exhibit #	Filing date
10.2(d)	Notice and acknowledgment under power purchase agreement effective November 24, 2017 by Hamakua Energy, LLC and acknowledged by Hawaii Electric Light.	10-K	1-4955	10.4(d)	3/1/18
10.3	Supply Contract for Low Sulfur Fuel Oil, High Sulfur Fuel Oil, No. 2 Diesel, and Ultra-Low Sulfur Diesel by and between Hawaiian Electric, Hawaii Electric Light, and Maui Electric and PAR Hawaii Refining, LLC dated February 1, 2022 (certain confidential information has been omitted)	10-Q	1-4955	10.1	5/9/22
10.4	Inter-Island Fuel Transportation Contract between Sause Bros., Inc. and Hawaiian Electric dated August 23, 2021 (certain confidential information has been omitted)	10-K	1-4955	10.6	2/25/22
10.5(a)***	Third Amended and Restated Credit Agreement, dated as of May 14, 2021, among Hawaiian Electric Company, Inc., as Borrower, the Lenders Party Hereto, and Bank of America, N.A. and U.S. Bank National Association, as Co-Syndication Agents, and Wells Fargo Bank, National Association, MUFG Union Bank, N.A., Barclays Bank PLC, Bank of Hawaii and The Toronto-Dominion Bank, New York Branch, as Co-Documentation Agents, and JPMorgan Chase Bank, N.A., as Administrative Agent, Swingline Lender and Issuing Bank, and JPMorgan Chase Bank, N.A. and Bank of America, N.A. as Sustainability Structuring Agents and JPMorgan Chase Bank, N.A., BofA Securities, Inc. and U.S. Bank National Association, as Joint Lead Arrangers and Joint Book Runners.	10-Q	1-4955	10.3	8/9/21
10.5(b)***	Amendment No. 1 dated as of April 21, 2023 to the Third Amended and Restated Credit Agreement, dated as of May 14, 2021.	10-Q	1-8503	10.2	8/7/23
* 21.2	Hawaiian Electric - Subsidiaries of the Registrant.				
* 31.3	Certification Pursuant to Section 13a-14 of the Securities Exchange Act of 1934 of Shelee M. T. Kimura (Hawaiian Electric Chief Executive Officer).				
* 31.4	Certification Pursuant to Section 13a-14 of the Securities Exchange Act of 1934 of Paul K. Ito (Hawaiian Electric Chief Financial Officer).				
* 32.2	Hawaiian Electric Certification Pursuant to 18 U.S.C. Section 1350.				
* 99.1	Hawaiian Electric's Directors, Executive Officers and Corporate Governance; Hawaiian Electric's Executive Compensation; Hawaiian Electric's Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters; Hawaiian Electric's Certain Relationships and Related Transactions, and Director Independence; and Hawaiian Electric's Principal Accounting Fees and Services.				

** Date of transmittal letter to SEC.

*** Schedules and exhibits have been omitted from this filing pursuant to Item 601(a) (5) of the Regulation S-K. We agree to furnish a copy of any omitted schedule or exhibit to the Securities and Exchange Commission upon request.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrants have duly caused this report to be signed on their behalf by the undersigned, thereunto duly authorized. The execution of this report by registrant Hawaiian Electric Company, Inc. shall be deemed to relate only to matters having reference to such registrant and its subsidiaries.

HAWAIIAN ELECTRIC INDUSTRIES, INC. (Registrant)	HAWAIIAN ELECTRIC COMPANY, INC. (Registrant)
By /s/ Scott T. DeGhetto	By /s/ Paul K. Ito
Scott T. DeGhetto Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer of HEI)	Paul K. Ito Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer of Hawaiian Electric)
Date: February 29, 2024	Date: February 29, 2024

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrants and in the capacities indicated on February 29, 2024. The execution of this report by each of the undersigned who signs this report solely in such person's capacity as a director or officer of Hawaiian Electric Company, Inc. shall be deemed to relate only to matters having reference to such registrant and its subsidiaries.

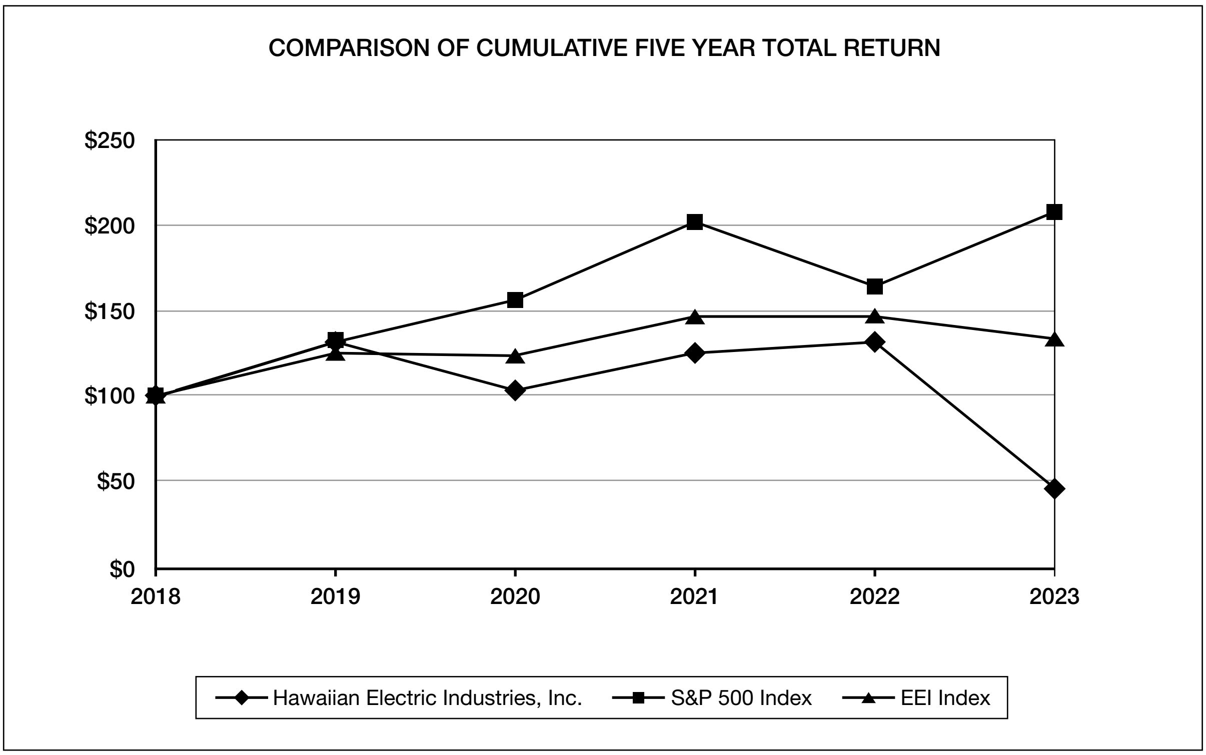
Signature	Title
/s/ Scott W. H. Seu Scott W. H. Seu	President & Chief Executive Officer of HEI and Director of HEI (Principal Executive Officer of HEI)
/s/ Shelee M. T. Kimura Shelee M. T. Kimura	President & Chief Executive Officer of Hawaiian Electric and Director of Hawaiian Electric (Principal Executive Officer of Hawaiian Electric)
/s/ Scott T. DeGhetto Scott T. DeGhetto	Executive Vice President, Chief Financial Officer and Treasurer of HEI (Principal Financial Officer of HEI)
/s/ Bruce K. Tamashiro Bruce K. Tamashiro	Controller of HEI (Principal Accounting Officer of HEI)
/s/ Paul K. Ito Paul K. Ito	Senior Vice President, Chief Financial Officer and Treasurer of Hawaiian Electric (Principal Financial Officer of Hawaiian Electric)
/s/ Shannon K. Asato Shannon K. Asato	Controller of Hawaiian Electric (Principal Accounting Officer of Hawaiian Electric)
/s/ James A. Ajello James A. Ajello	Director of Hawaiian Electric

Signature	Title
/s/ Celeste A. Connors Celeste A. Connors	Director of HEI
/s/ Thomas B. Fargo Thomas B. Fargo	Chair of the Board of Directors of HEI
/s/ Elisia K. Flores Elisia K. Flores	Director of HEI
/s/ Peggy Y. Fowler Peggy Y. Fowler	Director of HEI
/s/ Timothy E. Johns Timothy E. Johns	Chair of the Board of Directors of Hawaiian Electric
/s/ Micah A. Kāne Micah A. Kāne	Director of HEI
/s/ Mary E. Kipp Mary E. Kipp	Director of Hawaiian Electric
/s/ Alana Kobayashi Pakkala Alana Kobayashi Pakkala	Director of Hawaiian Electric
/s/ William James Scilacci, Jr. William James Scilacci, Jr.	Director of HEI
/s/ Toby B. Taniguchi Toby B. Taniguchi	Director of Hawaiian Electric

Appendix A

Shareholder Return Performance Graph

The graph below compares the cumulative total shareholder return on HEI Common Stock against the cumulative total return of the companies listed on the S&P 500 Stock Index and the Edison Electric Institute (EEI) Index of Investor-Owned Electric Companies (39 companies were included as of December 31, 2023). The graph is based on the market price of common stock for all companies in the indices at December 31 each year and assumes that $100 was invested on December 31, 2018, in HEI Common Stock and the common stock of all companies in the indices and that dividends were reinvested.



Source: S&P Global Inc.

Appendix B
Explanation of HEI's Use of Certain Unaudited Non-GAAP Measures

HEI, Hawaiian Electric and ASB management use certain non-GAAP measures to evaluate the performance of HEI, the utility and bank. Management believes these non-GAAP measures provide useful information and are a better indicator of the companies' core operating activities. Core earnings and other financial measures as presented here may not be comparable to similarly titled measures used by other companies. The accompanying tables provide a reconciliation of reported GAAP[1] earnings to non-GAAP core earnings for adjusted diluted EPS (for HEI consolidated); return on average common equity (for HEI consolidated and Hawaiian Electric); and returns on average equity, average tangible equity and average assets (for ASB).

The reconciling adjustments from GAAP[1] earnings to core earnings for 2023 are limited to the costs related to the recent Maui wildfires and, except for the utility, the loss on sale of investment securities from the balance sheet repositioning transaction executed in the fourth quarter. The reconciling adjustments from GAAP[1] earnings to core earnings for 2022 are limited to the gain on sale of an equity method investment recorded in the first quarter at Pacific Current. Management does not consider these items to be representative of the company's fundamental core earnings.

RECONCILIATION OF GAAP[1] TO NON-GAAP MEASURES

Hawaiian Electric Industries, Inc. and Subsidiaries (HEI) Unaudited ($ in millions, except per share amounts)	**2023**	**2022**	**2021**
HEI CONSOLIDATED NET INCOME			
GAAP (as reported)	**$ 199.2**	**$ 241.1**	**$ 246.2**
Excluding special items (after-tax)[2]:			
Maui wildfire-related expenses, excluding insurance recoveries and approved deferral treatment	14.1	-	-
Gain on sale of equity method investment	-	(6.1)	-
Loss on sale of investment securities	11.0	-	-
Non-GAAP (core) net income	**$ 224.3**	**$ 235.0**	**$ 246.2**
HEI CONSOLIDATED DILUTED EARNINGS PER COMMON SHARE			
GAAP (as reported)	**$ 1.81**	**$ 2.20**	**$ 2.25**
Excluding special items (after-tax)[2]:			
Maui wildfire-related expenses, excluding insurance recoveries and approved deferral treatment	0.13	-	-
Gain on sale of equity method investment	-	(0.06)	-
Loss on sale of investment securities	0.10	-	-
Non-GAAP (core) diluted earnings per common share	**$ 2.04**	**$ 2.14**	**$ 2.25**
HEI CONSOLIDATED RETURN ON AVERAGE COMMON EQUITY (ROACE) (simple average)			
Based on GAAP[1]	**8.8%**	**10.5%**	**10.4%**
Based on non-GAAP (core)[3]	**9.9%**	**10.2%**	**10.4%**

Note: Columns may not foot due to rounding

1 Accounting principles generally accepted in the United States of America.
2 Current year composite statutory tax rate of 25.75% is used for Utility and other segment amounts and current year composite statutory tax rate of 26.80% is used for ASB amounts.
3 Calculated as core net income divided by average GAAP common equity.

Executive Management *(as of March 1, 2024)*

HEI

Scott W. H. Seu
President and Chief Executive Officer, Hawaiian Electric Industries, Inc.
Director, American Savings Bank, F.S.B.

Scott T. DeGhetto
Executive Vice President, Chief Financial Officer and Treasurer

Kurt K. Murao
Executive Vice President, General Counsel, Chief Administrative Officer and Corporate Secretary

Darcy L. Endo-Omoto
Vice President, Executive Advisor to the President & CEO

Christine N. Ohashi
Vice President, Internal Audit

Julie R. Smolinski
Vice President, Strategy and Corporate Sustainability

HAWAIIAN ELECTRIC

Shelee M. T. Kimura
President and Chief Executive Officer

Jimmy D. Alberts
Senior Vice President and Chief Operations Officer

Jason E. Benn
Senior Vice President and Chief Information Officer

Colton K. Ching
Senior Vice President, Planning and Technology

Paul K. Ito
Senior Vice President, Chief Financial Officer and Treasurer

Joseph P. Viola
Senior Vice President, Customer, Legal and Regulatory Affairs

Brendan S. Bailey
Vice President, Customer Service

Rebecca Dayhuff Matsushima
Vice President, Resource Procurement

Michael R. DeCaprio
Vice President, Power Supply

Jacqueline I. U. Ingamells
Vice President, Human Resources & Chief People Strategist

James P. Kelly
Vice President, Government and Community Relations and Corporate Communications

Erin P. Kippen
Vice President, General Counsel, Chief Compliance Officer and Corporate Secretary

Keola Siafuafu
Vice President, Enterprise Operations Services

Rudy W. Tamayo
Vice President, Energy Delivery

Edward S. Tavares
Vice President, Cybersecurity Risk Management and Chief Information Security Officer

AMERICAN SAVINGS BANK

Ann C. Teranishi
President and Chief Executive Officer

Danielle K. N. Aiu
Executive Vice President, Consumer Banking

Brad E. Mattocks
Executive Vice President and Chief Information Officer

Tony Mizuno
Executive Vice President, Commercial Markets

Steven R. Nakahara
Executive Vice President and Chief Credit Officer

Natalie M. H. Taniguchi
Executive Vice President, Enterprise Risk and Regulatory Relations

Dane A. Teruya
Executive Vice President and Chief Financial Officer

John S. Ward
Executive Vice President and Chief Marketing and Product Officer

Beth Whitehead
Executive Vice President and Chief Administrative Officer

PACIFIC CURRENT

Scott A. Valentino
President

Board of Directors

HEI

Admiral Thomas B. Fargo, USN (retd.)
Chair, HEI
Former Commander of the U.S. Pacific Command
President, Fargo Associates, LLC

Celeste A. Connors
Director, HEI
CEO, Hawai'i Green Growth Local2030 Hub

Peggy Y. Fowler
Director, HEI
Former CEO, Portland General Electric Company

William James Scilacci, Jr.
Director, HEI
Former Executive Vice President and Chief Financial Officer, Edison International

Scott W. H. Seu
President and CEO, HEI
Director, HEI

Elisia K. Flores
Director, HEI
CEO and Vice Chair, L&L Franchise, Inc.

Micah A. Kāne
Director, HEI
President and CEO, Hawai'i Community Foundation

HAWAIIAN ELECTRIC

Timothy E. Johns
Chair, Hawaiian Electric
President and CEO, Zephyr Insurance Company, Inc.

Shelee M. T. Kimura
President and CEO, Hawaiian Electric
Director, Hawaiian Electric

James A. Ajello
Director, Hawaiian Electric
Former Senior Vice President Finance, Chief Financial Officer and Treasurer, Portland General Electric Company

Mary E. Kipp
Director, Hawaiian Electric
President and CEO, Puget Sound Energy, Inc.

Alana K. Pakkala
Director, Hawaiian Electric
Manager and Executive Vice President, Kobayashi Group, LLC

Toby B. Taniguchi
Director, Hawaiian Electric
President and COO, KTA Super Stores

ASB

Richard J. Dahl
Chair, ASB
Former Chairman, President and CEO, James Campbell Company LLC

Scott W. H. Seu
President and CEO, HEI
Director, ASB

Ann C. Teranishi
President and CEO, ASB
Director, ASB

Michael J. Kennedy
Director, ASB
Former CEO, Velo Labs

Yoko Otani
Director, ASB
Partner, Straterix

CORPORATE HEADQUARTERS
Hawaiian Electric Industries, Inc.
1001 Bishop Street, Suite 2900
Honolulu, Hawaiʻi 96813
Telephone: 808-543-5662

Mailing address:
Investor Relations
P.O. Box 730
Honolulu, Hawaiʻi 96808-0730

NEW YORK STOCK EXCHANGE
Common stock symbol: HE

SHAREHOLDER SERVICES
c/o Broadridge Corporate Issuer Solutions
P.O. Box 1342
Brentwood, NY 11717
Telephone: 808-206-7529
Toll Free: 866-672-5841
M-F 9:00 a.m. to 9:30 p.m. EST
E-mail: shareholder@broadridge.com

Correspondence about common stock and utility preferred stock ownership, dividend payments, transfer requirements, changes of address, lost stock certificates, duplicate mailings, and account status may be directed to Shareholder Services, c/o Broadridge.

A copy of the 2023 Form 10-K Annual Report for Hawaiian Electric Industries, Inc. and Hawaiian Electric Company, Inc., including financial statements and schedules, will be provided by HEI without charge upon written request directed to Shareholder Services at the above address for Shareholder Services or through HEI's website.

WEBSITE
Internet users can access information about HEI and its subsidiaries at www.hei.com.

DIVIDENDS AND DISTRIBUTIONS
Utility company preferred stock quarterly dividends are paid on the 15th of January, April, July, and October to preferred shareholders of record on the 5th of these months.

TRANSFER AGENT
Common stock and utility company preferred stock:
Shareholder Services
c/o Broadridge Corporate Issuer Solutions

DIRECT REGISTRATION
HEI common stock can be issued in direct registration (book entry) form. The stock is DRS (Direct Registration System) eligible.

DIVIDEND REINVESTMENT AND STOCK PURCHASE PLAN
Any individual of legal age or any entity may buy HEI common stock at market prices directly from HEI. The minimum initial investment is $250. Additional optional cash investments may be as small as $25. The annual maximum investment is $300,000. After your account is open, you may reinvest any dividends you receive to purchase additional shares or elect to receive some or all of your dividends in cash. You may instruct HEI to electronically debit a regular amount from a checking or savings account. HEI can also deposit dividends automatically to your checking or savings account. A prospectus describing the plan may be obtained through HEI's website or by contacting Shareholder Services, c/o Broadridge.

ANNUAL MEETING
Monday, May 13th, 2024 at 8:00 a.m. Hawaiʻi time

www.virtualshareholdermeeting.com/HE2024

The live audio webcast will begin promptly at 8:00 a.m. Hawaiʻi time. To participate in the virtual 2024 Annual Meeting, you will need the control number included on your proxy card.

Please direct inquiries to:
Kurt K. Murao, Executive Vice President, General Counsel,
Chief Administrative Officer and Corporate Secretary
Telephone: 808-543-5884
Facsimile: 808-543-7735

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INSTITUTIONAL INVESTOR AND SECURITIES ANALYST INQUIRIES
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Director, Investor Relations
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HEI
CATALYST FOR A BETTER HAWAIʻI

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