



Empowering Global Participation in Securing the Decentralized Internet

Meeting with SEC Crypto Task Force - April 21, 2025



Agenda

- About Alluvial
- Key Challenges with Institutional Staking
 - Slashing
 - Liquidity
- Liquid Staking Tokens



About Alluvial

- U.S. software development company founded in 2022 by alumni from pioneers in staking, such as Figment and Bison Trails (Coinbase Cloud)
- Business focus is on institutional market for staking
 - Liquid Collective protocol
 - Alluvial Stake Management System
- Since founding, engaged on staking with custodians, institutional asset managers and trading platforms in the U.S. and other markets
- Spearheaded development of Node Operator Risk Standard (NORS)



Key Points

- Institutional staking participants should be expected to manage and disclose risks from validator concentration and lock-up periods.
- Adaptable regulatory guidance will better support competition, innovation, and resilient staking solutions.
- Clear guidance that LSTs are not securities will unlock U.S. innovation and adoption. Any guidance on staking should cover widely adopted models, including liquid staking.

Key Challenges with Institutional Staking



Challenge #1: Correlated Slashing Risk

Correlated slashing risk is a critical staking risk for ETFs and other institutional participants in staking. Diversifying stake across multiple operators is the best mitigant.

Risks associated with single-operator staking solutions

- Ethereum severely penalizes correlated slashing
- The higher the percentage of the network slashed, the greater the losses per validator

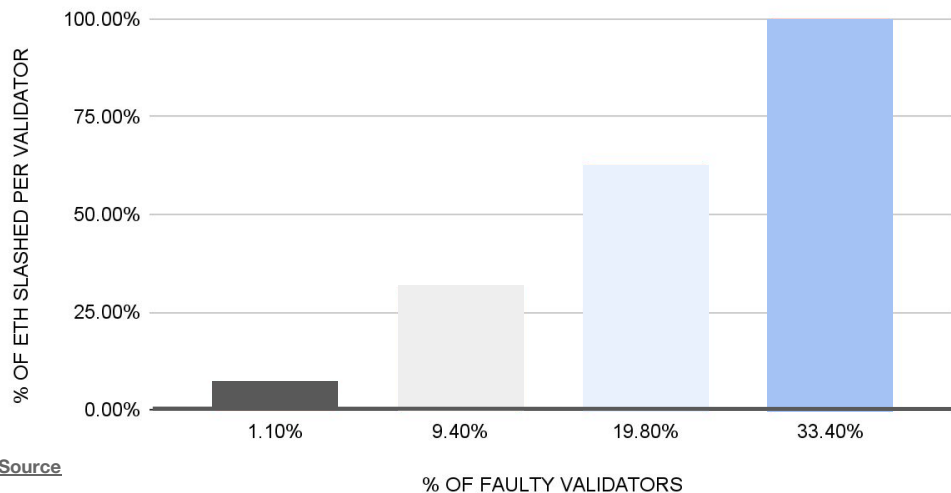
The importance of diversification in staking

- Mitigates correlated slashing risk
- Supports network health and uptime
- Long-term resilience through distributed operations

Multi-operator solutions for enhanced risk management

- Diversifying staked ETH across multiple node operators
- Multi-cloud, multi-client, multi-region infrastructure
- Failovers and other business continuity protections

CORRELATED SLASHING SCENARIOS





NORS: Node Operator Risk Standard



- Establishes **clear, objective, and measurable standards** for professional ETH node operators
- NORS certification encourages the promotion and adoption of resilient, secure, and transparent validation practices

NORS DEVELOPMENT WORKING GROUP



Alluvial



AON



Blockdaemon



Chainproof



Coinbase



DV Labs



Eigen Labs



Figment



Galaxy



Liquid Collective



Nexus Mutual



Staked

KEY NORS ELEMENTS

- **The core of the NORS certification is the Risk Control Matrix (RCM)**, an open standard outlining specific control objectives.
- NORS Qualified Assessors & NORS Readiness Assessors



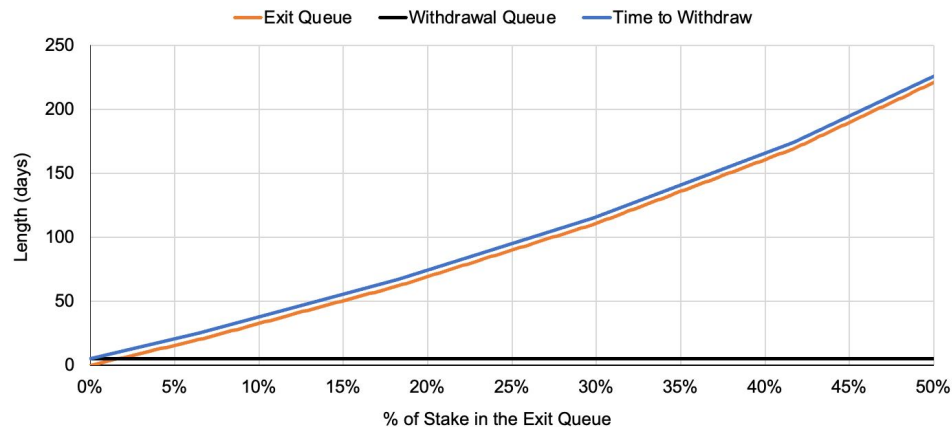
Challenge #2: Liquidity & Capital Efficiency

Managing liquidity for the staking process is a primary challenge integrating staking to ETPs.

Ether staking includes an unbonding period for security:

- ETF redemption is a t+1 settlement, but ETH unbonding period has ranged from **6-12+ days**
- The unbonding period is required, but duration is variable based on demand

DAYS TO WITHDRAW UNDER EXITING STAKE ASSUMPTIONS



Source: GSR



Emerging Liquidity Solutions

Lending / Credit Lines

Loans of liquid assets repayable following exit/unbonding process.

Considerations

- Potential inability to take security
- Unsecured, committed lending more costly
- Opaque market
- Limited size of lending market

Validator NFTs

Single validators represented by NFTs

Considerations

- Non-fungible nature limits price discovery and liquidity

Transferable Validator Sets

Withdrawal credentials controlled by simple smart contract, allowing ETH transfers for 1+ validators without exiting

Considerations

- Non-fungible nature limits price discovery and liquidity

Liquid Staking Tokens

Liquidity provided by secondary markets.

Considerations

- Liquidity of LST markets
- Regulatory uncertainty

Multiple solutions may be required to meet liquidity requirements.



Impact of Pectra

- **Pectra introduces new market dynamics**
Execution layer partial exits change validator redemption flows and incentives.
- **Liquidity design is in flux**
Traditional staking systems and LST protocols are rapidly iterating on exit frameworks.
- **Post-upgrade behavior remains uncertain**
Execution layer partial exits allow for redemptions as quickly as 27 hours, but the queuing dynamics won't be known until after launch.
- **Pectra is currently targeted for mainnet deployment on May 7th**
Platforms will need time to test and adapt before supporting large-scale inflows via ETFs.



Policy Implications

- Institutional participants in staking should be expected to consider and mitigate risks arising from lack of validator diversity and protocol-imposed lock-up periods.
- Disclosure should include material information about operator diversity and associated risks.
- Timing of regulatory guidance/approvals will affect product design and market structure for staking liquidity.
- An adaptable regulatory approach for institutional staking will promote competition, foster innovation and lead to more robust products and solutions.

Liquid Staking Tokens



Benefits & Use Cases

BENEFITS

- Liquidity
- More Efficient & Transparent Markets
- Capital Efficiency
- Diverse Validator Set
- Increased Staking Participation
- Counterparty Risk Mitigation
- Transparency of Rewards
- Reduced Product Frictions
- Automated Staking of Rewards
- Reward Smooth / Risk Spreading

USE CASES

- Exchange Traded Products
- Enterprise/Institutional Borrowing
- Crypto Trading Platforms
- Retail Users



Liquid Staking Risks and Mitigants

1. SLASHING

Similar to traditional staking, liquid staking users are subject to any slashing risks.

Mitigants

- Diverse set of node operators
- Best practices and standards like the Node Operator Risk Standard

2. SMART CONTRACT RISK

Risk that liquid staking smart contract has vulnerabilities that lead to losses for users.

Mitigants

- Assets not directly available to smart contracts while staked
- Publicly available source code to facilitate external review
- Publicly disclosed audits / formal verifications
- Transparent governance

3. LIQUIDITY

Most LSTs have limited liquidity today, as compared to major tokens or stablecoins.

Mitigants

- Users can unstake using the protocol
- Anticipated growth of liquidity with broader institutional and enterprise adoption



Regulatory Challenges Facing LSTs

- **Issue:** Uncertainty regarding application of U.S. federal securities laws to issuing or trading LSTs
 - *SEC v. Consensusys* - the following activities by liquid staking protocols were alleged in support of position that issuance of LSTs amounted to offering of investment contracts:
 - Publishing historical staking rates
 - Selecting node operators
 - Arranging for and publishing security audits
 - Making available slashing insurance
- **Impact:** ~\$30B staked globally via LSTs, but low U.S. adoption
 - Limited support on U.S. crypto trading platforms
 - Many OTC desks / liquidity providers unwilling to trade LSTs with U.S. counterparties
 - U.S. ETFs and other institutions concerned about regulatory risk of using LSTs
 - Liquid staking projects limiting U.S. touchpoints
- **Securities regulatory concerns are single biggest barrier to adoption of liquid staking within the U.S.**



Legal Perspective: LSTs as Electronic Documents of Title

- Alluvial endorses POSA's legal analysis of why LSTs are not subject to U.S. federal securities laws
- LSTs are electronic documents of title that evidences ownership of an intangible, fungible digital commodity (e.g., ETH)
 - Analogous to warehouse receipts, bills of lading, dock warrants and other documents of title for physical commodities
 - Documents of title facilitate *commercial* transactions, not investments
- Uniform Commercial Code can provide protections to holders of LSTs or lenders taking security interests in LSTs



No Profits Expected from Managerial Efforts of Another

- Rewards received by an LST holder are dependent on external factors, such as:
 - Market price of staked assets
 - Rewards generated by the network
 - Willingness of network users to pay for transaction priority
 - Number of validators on the network
- “Efforts” by liquid staking projects are administrative, not managerial or entrepreneurial, e.g.,
 - Publishing protocol source code
 - Arranging security audits
 - Setting and maintaining proficiency standards for operators
 - Monitoring protocol operations
- Liquid staking protocols typically involve multiple actors
 - Protocol developers typically not running validator infrastructure
 - Protocol access may be permissionless or provided by multiple independent parties
 - Validators typically operated by multiple, independent, competing operators



Proposed Criteria for Distinguishing LSTs

- LSTs that meet the following criteria should not be subject to federal securities laws:
 - **User Ownership and Control**
 - Users retain ownership of staked assets
 - Users retain control over when to stake and unstake
 - Rewards flow to users, less any fees
 - **Technical Service**
 - Protocol only administers staking operations for users and provides transferability
 - Protocol does not purport to guarantee liquidity
 - Protocol does not otherwise transact using staked assets (e.g., leverage, lending)
 - No guarantees of rewards or claims of superior performance



Address Issues Raised by Prior Enforcement Action

- Activities that mitigate risk to users, such as the following, should not create regulatory risk:
 - Publishing performance information (e.g., historical staking reward rates)
 - Describing/promoting features and benefits (not as an investment opportunity)
 - Security audits
 - Insurance
 - Listings
 - Protocol monitoring
 - Validator operator standards
- Clarification would reduce residual uncertainty created by positions taken in *SEC v. Consensusys*



Policy Implications

- Regulatory clarity that LSTs are not subject to U.S. federal securities laws will be pro-competition and pro-innovation by unblocking product development and market adoption within the U.S.
- Any guidance on staking should be comprehensive and address different ways of staking, including liquid staking.
- Liquid staking protocols that maintain **user ownership and control** and provide only a **technical service** should be considered outside the existing securities regulatory perimeter.
- Important to clarify that risk mitigating activities commonly undertaken in connection with liquid staking protocols are not viewed as attracting the application of securities laws.

Questions

Appendix

Liquid Collective Overview



SECURITY

Enterprise-grade infrastructure, built-in slashing coverage and performance SLAs. Security audits from leading security firms.



INTEROPERABILITY

Cross-platform support and interoperability.



COMPLIANCE

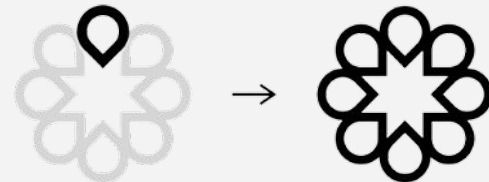
KYC/AML for all users when minting or redeeming.



USER AGREEMENT

Terms of use confirm users retain ownership.

Liquid Collective



To create the industry-leading liquid staking standard requires collaboration



Liquid Staking Overview

Liquid staking is a technological solution that provides **liquidity** and increased **capital efficiency** for participants in proof of stake blockchain networks.

HOW LIQUID STAKING WORKS

- Liquid staking lowers the barrier to entry to protocol staking, enabling anyone with any amount to participate, without losing access to their liquidity.
 - Makes staking more accessible and capital efficient
 - Helps make PoS networks more secure and protects smaller holders from dilution
 - Liquid staking also mitigates risks of custodial staking services
- Token holders stake their token and receive a receipt token, called a liquid staking token (LST), to evidence ownership of their staked token.
- Liquid staking is facilitated by a set of smart contracts that automatically processes the creation and redemption of liquid staking tokens.
- Users can redeem their LST tokens directly from a Liquid Staking Service

LIQUID STAKING TOKENS (LSTs)

- Fungible receipt evidencing legal and beneficial ownership of the staked position
- Represent staked ETH + ETH network rewards
- Can be transferred, stored, traded, and utilized in decentralized finance or supported applications



LST

=



Staked
ETH

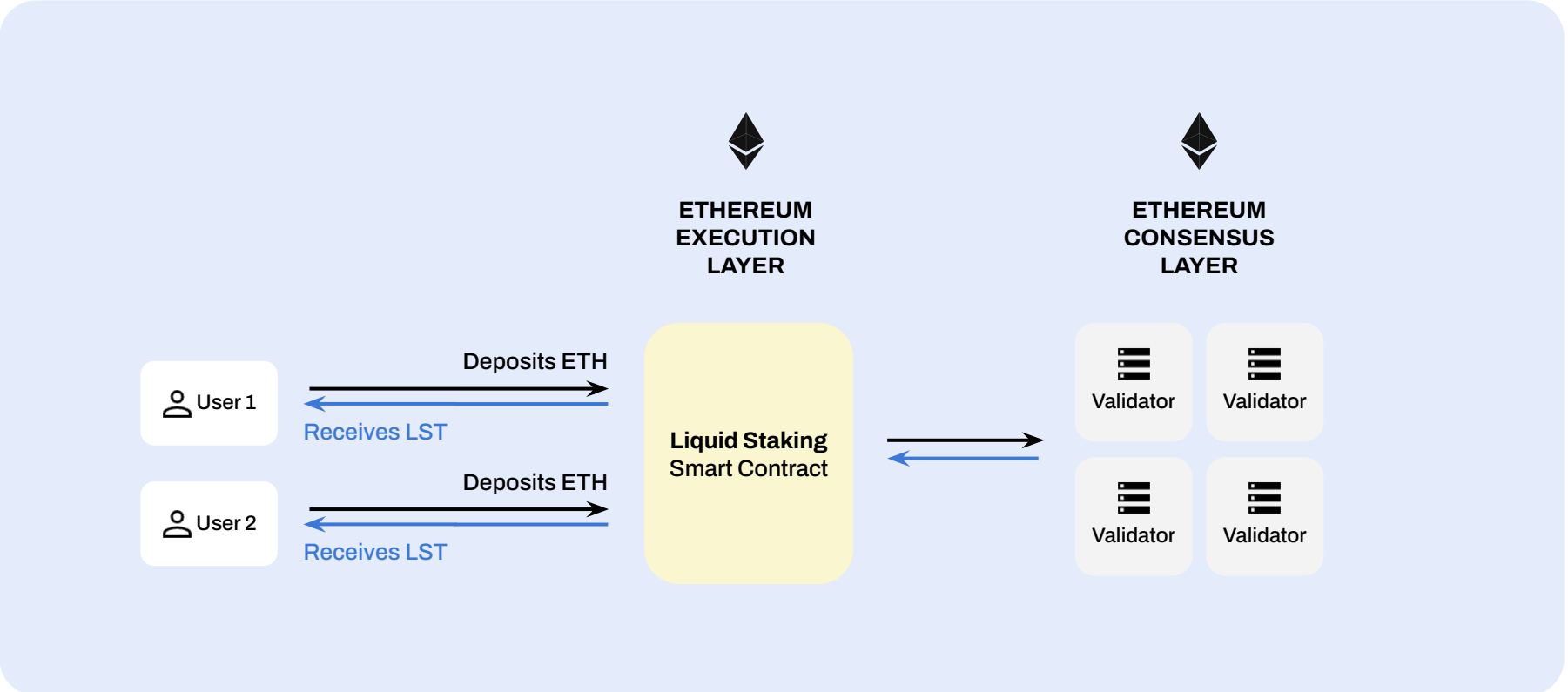
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ETH Network
Rewards

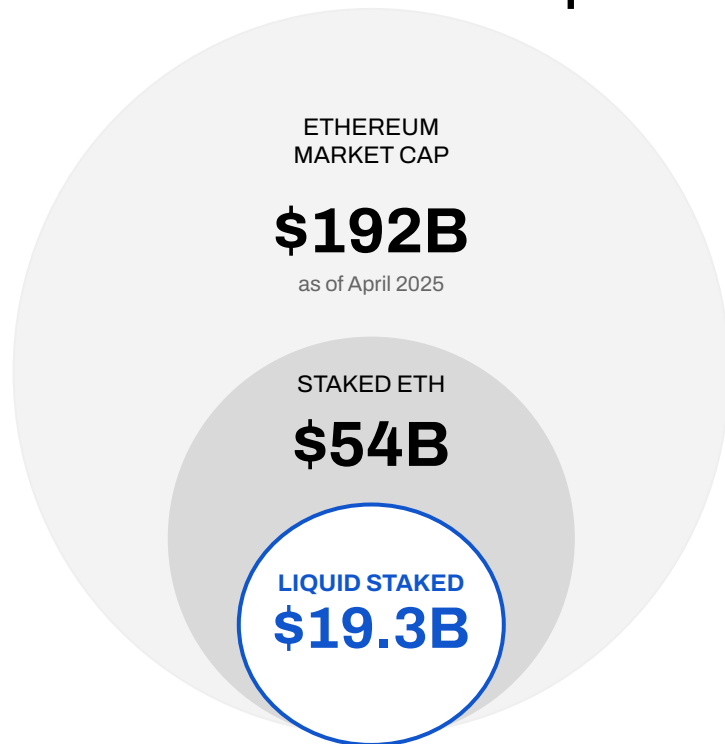


Liquid Staking Illustrative Flows





State of the ETH Liquid Staking Market



LIQUID STAKING MARKET OVERVIEW

KEY MARKET DIFFERENTIATORS

Permissioned vs Permissionless

- Permissionless: Allow users to deposit and redeem without any KYC (e.g., Lido and Rocketpool)
- Permissioned: Users subject to KYC prior to depositing or redeeming staked ETH (e.g., Liquid Collective and cbETH)

Provider vs Protocol Model

- Provider Model: Single party controls the selection of node operators and provides access to deposits and redemptions (e.g., cbETH)
- Protocol Model: Governed by broad group of users or companies, with multiple access points to deposit and redeem (e.g., Lido and Liquid Collective)