



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

September 6, 2023

Patrick Eilers  
Chief Executive Officer  
Power & Digital Infrastructure Acquisition II Corp.  
321 North Clark Street, Suite 2440  
Chicago, IL 60654

**Re: Power & Digital Infrastructure Acquisition II Corp.**  
**Registration Statement on Form S-4**  
**Filed August 9, 2023**  
**File No. 333-273821**

Dear Patrick Eilers:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Registration Statement on Form S-4 filed August 9, 2023

Questions and Answers

What vote is required to approve each proposal at the special meeting?, page xvii

1. Given that the Initial Stockholders, the Sponsor and the XPDB's directors have agreed to vote in favor of the proposals, please specify the percentage of votes by public or non-affiliated holders required to approve each of the proposals.

Do any of XPDB's directors or officers have interests in the business combination, page xviii

2. Please revise to include the effective purchase price paid by the Initial Stockholders for the Founders Shares, both in the aggregate and on a per share basis.
3. We note that you reference the reimbursement for out-of-pocket expenses incurred in

connection with activities on your behalf such as identifying potential target businesses and performing due diligence on suitable business combinations, advisory fees and consulting fees that will be paid to XMS Capital and TEP. Please revise to quantify the aggregate dollar amount of the fees due to XMS Capital and TEP. Similar revisions should be included in your discussion of related party transactions.

4. We note that TEP, an affiliate of the SPAC Sponsor and a minority investor in Montana Technologies, is controlled by Patrick Eilers, a director of XPDB. Please disclose the aggregate dollar value of the shares that TEP will receive at the current exchange ratio.

#### Risk Factors

##### Risks Related to Our Business and Our Industry

Our commercialization strategy relies heavily, page 20

5. We note your statement that you depend on relationships with third parties. In this regard, it appears you have a development agreement with BASF and a joint venture agreement with CATL. Please describe the material terms of these agreements and file them as exhibits or tell us why they are not required to be filed. Refer to Item 601(b)(10) of Regulation S-K.

#### Unaudited Pro Forma Condensed Combined Financial Statements

##### Description of the Business Combination, page 55

6. You disclose that the grants of the Earnout Shares will be dependent upon board approval to construct lines of production of coated contactors based upon demand from customer commitments beyond three lines of production in the base plan. However, your disclosure on page F-40 appears to indicate that the Earnout Shares will be issued upon achievement of certain milestones related to production capacity and anticipated annualized EBITDA of the Combined Company following Closing. Please revise your disclosures to describe all the conditions upon which Earnout Shares will be paid, the specific targets that must be met, and the associated shares that will be paid upon achievement of each target.
7. Tell us how you considered whether Earnout Shares payable to Montana Equityholders represent post combination compensation expense. In your response, please clarify: 1) whether continuing employment is required to earn the awards for any employees and, if so, the length of such required continued employment; 2) how compensation for Equityholders who are continuing employees was determined, including whether it is reasonable compared to other key employees who are not equity holders; and 3) whether all Equityholders will receive the same additional shares on a per share basis, including those who will continue as employees and those who will not.

#### Anticipated Accounting Treatment, page 57

8. You disclose that the Montana Equityholders will have the ability to control decisions regarding election and removal of directors and officers of the Post-

Combination Company. Please revise your disclosures to clarify how Montana Equityholders will have this ability. In this regard, your disclosure on page 84 appears to indicate that stockholders of XPDB are being asked to elect a number of directors to the Post-Combination Company Board with terms ranging between 2024 and 2026. Please clarify the expected size of the Board of Directors, how many directors XPDB will have the ability to elect and how many directors Montana will have the ability to elect. Please also clarify the agreements that give Montana Equityholders the ability to control decisions regarding election and removal of directors and officers, both at the closing of the Business Combination and in post-closing periods.

Unaudited Pro Forma Condensed Combined Balance Sheet  
Adjustments to Unaudited Pro Forma Condensed Combined Balance Sheet  
Note (L), page 61

9. Revise your disclosure to clarify how you determined the fair value of the Earnout Shares, including all significant assumptions used. Please also clarify how you will determine the fair value in periods subsequent to the closing of the Business Combination and provide an estimate of the possible range of outcomes and the related impacts on your income statement.

Unaudited Pro Forma Condensed Combined Statements of Operations, page 64

10. Tell us how you considered including adjustments for compensation expense relating to the Earnout Shares payable to the holders of Montana Options in your pro forma income statements for the year ended December 31, 2022 and the three months ended March 31, 2023, assuming the Business Combination had been consummated as of January 1, 2022.
11. Your disclosure on page 115 indicates that any share redemption or other share repurchase that occurs after December 31, 2022, in connection with a business combination, extension vote or otherwise, may be subject to the new U.S. federal 1% excise tax on certain repurchases of stock by publicly traded U.S. domestic corporations, provided for by the IR Act that was signed into law on August 16, 2022. Tell us how you considered including adjustments for the impacts of this excise tax relating to the redemption of 18,141,822 shares of XPDB Class A Common Stock on June 7, 2023, as well as the additional redemptions assumed in your “Assuming Maximum Contractual Redemptions Scenario.” If you are unable to estimate this tax, tell us how you considered disclosing the reasons why and a range of possible outcomes.

Information about XPDB  
Permitted Purchases of Our Securities, page 100

12. We note your disclosure that in connection with the redemption of your shares that the Sponsor, directors, executive officers, advisors or their affiliates may purchase shares or

XPDB public warrants in privately negotiated transactions or in the open market either prior to the business combination. Please provide your analysis on how such purchases would comply with Rule 14e-5.

Security Ownership of Certain Beneficial Owners and Management of XPDB and the Post-Combination Company, page 120

13. We note that the current equityholders of Montana Technologies LLC will control 80% of the voting and other dispositive power with respect to the common stock of the post-combination company. Please revise to include the post-combination ownership of any Montana Technologies equityholder that will exceed 5% following the change in control. Include similar revisions for any equityholders that will become directors or officers of the company following the business combination. Refer to Item 403(c) of Regulation S-K.

Montana Management's Discussion and Analysis of Financial Condition and Results of Operations  
Our Partnerships, page 129

14. We note that you make several statements regarding the market position of the parties to your partnerships. For example, you state that PNNL is a “leading company and lab,” BASF is “the world’s largest chemical company,” and CATL is “the world’s largest lithium-ion battery manufacturer.” Please disclose the basis for these statements.

Growth Strategy and Outlook, page 135

15. You estimate that “a capital expenditure investment of less than \$50 million per production line to coat aluminum contactors will generate approximately \$100 million in EBITDA per line for the Company.” Please disclose the basis for this estimate and include all material assumptions and limitations underlying it.

The Business Combination  
Background of the Business Combination, page 151

16. We note that your discussion makes reference to certain projected financial information considered by the XPDB board when evaluating the business combination with Montana Technologies. Please revise this discussion to clearly highlight the material assumptions underlying the projections and the limitations of the projections. Further, if the board considered multiple sets of projections other than those referenced here, each should be highlighted in your discussion, including the basis for the board's belief that the selected projections are reasonable. Finally, disclose the dates of each of the financial analyses conducted by XPDB's management.

Recommendation of the XPDB Board and Reasons for the Business Combination, page 157

17. We note your statement that the board decision to recommend the transaction was “including, but not limited to, the following material factors.” Please revise to include,

without qualification, the full list of material factors considered by the board when determining whether to recommend the business combination.

The Business Combination

Recommendation of the XPDB Board and Reasons for the Business Combination, page 157

18. Your disclose on page 159 indicates states that the XPDB Board reviewed Montana's potential manufacturing MOF coating line economics, which illustrate potential annualized EBITDA of \$300 million for three lines based on Montana's sole ownership of production and potential annualized EBITDA of \$150 million for three lines based on Montana's ownership through a 50/50 joint venture. Revise your disclosure to clarify why you considered ownership through a joint venture. Clarify the material terms of any agreements currently in place with a joint venture. If no agreements are currently in place, clarify your basis for disclosing potential annualized EBITDA through a 50/50 joint venture.
19. Fully describe the material assumptions used in determining potential annualized EBITDA of \$150 million. Clarify if you have any contractual revenue arrangements currently in place and the dollar amounts and terms of such contracts. If no contracts are in place, clarify your basis for assumed revenue and expenses. Also, clarify the time frame over which the potential annualized EBITDA is expected to be achieved and your basis for this assumption. Clarify each significant factor or contingency that would affect achievement of the potential annualized EBITDA and tell us if you prepared a sensitivity analysis or alternative EBITDA calculations taking into consideration possible outcomes as a result of these contingencies.
20. You disclose that XPDB assumed a ten (10) times multiple and applied such multiple to Montana's potential annualized 50/50 joint venture EBITDA of \$150 million. You further disclose that XPDB selected publicly traded companies in two markets, HVAC and water production and processing companies, due to the relationship of Montana's technology to the HVAC and water harvesting industries, and that the ten (10) times multiple was a discount to the observed average HVAC and water multiples of peer companies. Clarify your basis for selecting the peer companies that you disclose, including the similarities and differences to Montana's operations.
21. Clarify whether you believe the potential annualized EBITDA, the pro forma enterprise value and all of the underlying assumptions that you disclose still reflect management's current views taking into account subsequent events or other changes in circumstances. Update your response through the effectiveness of your registration statement.

Certain Relationships and Related Party Transactions of XPDB

Advisory, Consulting and Service Fees, page 203

22. We note your disclosure that XMS Capital Partners provided financial advisory services to the company. Please revise to describe the nature of these services and the role of XMS

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Page 6

Capital Partners in the current transaction.

General

23. Please provide us with any correspondence between BofA Securities and XPDB relating to the resignation of BofA Securities.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Laura Veator, Senior Staff Accountant, at (202) 551-3716 or Stephen Krikorian, Accounting Branch Chief, at (202) 551-3488 if you have questions regarding comments on the financial statements and related matters. Please contact Austin Pattan, Staff Attorney, at (202) 551-6756 or Jan Woo, Legal Branch Chief, at (202) 551-3453 with any other questions.

Sincerely,

Division of Corporation Finance  
Office of Technology

cc: Debbie Yee