NET Power Inc.

320 Roney St., Suite 200 Durham, North Carolina 27701

August 27, 2024

VIA EDGAR

Division of Corporation Finance Office of Manufacturing U.S. Securities and Exchange Commission 100 F Street, NE Washington DC 20549

Attention: Heather Clark Melissa Gilmore

Re: NET Power Inc. Form 10-K for the Year Ended December 31, 2023 Filed March 11, 2024 File No. 001-40503

Dear Ms. Clark and Ms. Gilmore,

NET Power Inc. (the "Company") is in receipt of the letter dated August 21, 2024 from the staff of the U.S. Securities and Exchange Commission (the "Staff") with respect to the above-referenced Annual Report on Form 10-K for the year ended December 31, 2023 (the "10-K"). We are responding to the Staff's comments included in such letter. All capitalized terms used but not defined in this response letter have the meanings given to them in the 10-K.

Form 10-K for the Year Ended December 31, 2023

Management's Discussion and Analysis of Financial Condition and Results of Operations
Results of Operations

Comparison of the Years Ended December 31, 2023 and 2022, page 49

1. We note your presentation of the change in results from 2022 to 2023 combines results for the predecessor and successor periods for the year ended December 31, 2023. Please note it is not appropriate to combine the changes in results for purposes of your Management's Discussion and Analysis as the financial statements are prepared on different bases of accounting and are not comparable. Please revise your tabular presentation and discuss the separate historical results of your predecessor and successor. To the extent you include a supplemental comparative discussion of the results for 2023 and 2022 prepared on a pro forma basis consistent with the requirements set forth in Article 11 of Regulation S-X, disclosure should be provided to explain how the pro forma presentation was derived, why you believe the presentation to be useful, and any potential risks associated with using such a presentation. We note a similar presentation in your 10-Q filings.

Company Response:

The Company respectfully acknowledges the Staff's comment regarding the tabular presentation and also acknowledges that it is generally inappropriate to combine financial information for the predecessor and successor periods. In preparing the "Results of Operations" subsection of the Management's Discussion and Analysis section (the "MD&A"), the Company intentionally did not present a combined total for the predecessor and successor periods, but only used the respective amounts for purposes of calculating the change period-over-period that was included in the tabular presentation. Additionally, the Company intentionally did not include the combined total in its discussion, and instead only referenced the total change.

When preparing the discussion contained in the "Results of Operations" subsection, the Company considered the objective of Item 303 of Regulation S-K, which is to provide material information that will enhance a reader's understanding of the operations of the business from management's perspective. As discussed in section 9110.1 of the Division of Corporation Finance's Financial Reporting Manual (the "FRM"), the objectives of MD&A are:

- a To provide a narrative explanation of a company's financial statements that enables investors to see the company through the eyes of management;
- b To enhance the overall financial disclosure and provide the context within which financial information should be analyzed; and
- c To provide information about the quality of, and potential variability of, a company's earnings and cash flow so that investors can ascertain the likelihood that past performance is indicative of future performance.

Management believes the analysis of the full year results, as presented, provides the most meaningful information to readers as it relates to trends in the business. While the Company acknowledges there was a change in basis of accounting from the predecessor to successor periods, management considered the guidance in section 9220.2 of the FRM and took care to explain the impact the change in accounting had as it relates to the variances for the combined period, which were limited to:

- a the increase in the value of intangible assets for internally developed technology and the fair value of our Demonstration Plant that significantly increased amortization and depreciation expense;
- b charges specifically related to the Business Combination, such as the one-time cost to settle an option agreement in connection with the consummation of the Business Combination and increases in general and administrative expense; and
- c new items that existed in the successor period that did not exist in the predecessor period. This includes the Change in the Earnout Shares liability and Warrant liability as those instruments were issued in connection with the Business Combination. Additionally, Income tax benefit was included in the successor period due to a change from a limited liability company in the predecessor period to a corporation in the successor period.

Management does not believe that presentation and discussion of the results on a separate basis would provide readers with more relevant context in understanding the Company's activities

during the period. Furthermore, the Company considered whether to supplement the MD&A with pro forma financial information as suggested in section 9220.7 of the FRM; however, management does not believe pro forma financial information would provide any additional or meaningful information and believes that the presentation of the pro forma results would be duplicative of information already included given the nature of the Business Combination.

In future filings, the Company will remove the "\$ Change" and "% Change" columns from the tabular presentation in future filings beginning with the quarterly report on Form 10-Q for the quarter ended September 30, 2024, but respectfully requests to continue to refer to the total change in the "Results of Operations" discussion in order to provide investors with a meaningful analysis.

Financial Statements

Notes to Consolidated Financial Statements

Note 13 - Leases

Office Lease, page F-31

2. Your disclosure indicates that "the simultaneous termination of the Measurement Building Lease and execution of the Roney Street Lease represents a single transaction accounted for as a modification of the Measurement Building Lease." Given that you vacated a building and moved to a new location, please tell us how you determined this to be a modification rather than a termination of the Measurement Building Lease with a new lease entered into as a separate contract for Roney Street. Please refer to paragraphs 8 and 9 of ASC 842-10-25.

Company Response:

The Company respectfully acknowledge the Staff's comment. When evaluating the accounting treatment for the simultaneous termination of the Measurement Building Lease and execution of the Roney St. Lease, the Company first considered whether the two contracts would be accounted for separately or on a combined basis based on the guidance in the Financial Accounting Standards Board's Accounting Standards Codification ("ASC") 842-10-25-19. It is noted that the lessor of the Measurement Building Lease and the lessor of the Roney St. Lease are controlled by a common parent; therefore, the counterparties to both leases are related parties to each other. In addition, the contracts were entered into at the same time and were negotiated as a package with the same commercial objective. Accordingly, the Company concluded that the conditions outlined in ASC 842-10-25-19 for contract combination were met. As a result, the Company evaluated the contract to terminate the Measurement Building Lease and the contract for the new Roney St. Lease on a combined basis and applied the lease modification guidance in ASC 842.

The Company assessed whether the modification should be accounted for as a separate contract under the guidance in ASC 842-10-25-8 which states a lease modification should be accounted for as a separate contract when (a) the modification grants the lessee an additional right of use not included in the original lease and (b) the lease payments are commensurate with the standalone price of the additional right of use. The Company concluded the total increase in lease payments of the amended, combined contract was not commensurate with the standalone price

for the additional right of use for the Roney St. Lease. In addition, the Company concluded the combined contract changed the scope of and consideration for the Measurement Building Lease (i.e., reduced the term and consideration for the Measurement Building Lease). Therefore, the criteria in ASC 842-10-25-8 on accounting for the additional right of use as a separate contract were not met.

In determining how to apply the ASC 842-10-25-11 lease modification guidance to this amended, combined contract, the Company notes that the early exit of the Measurement Building Lease went into effect two months after the amendment was signed versus an immediate exist of the property. As a result, the Company concluded and accounted for the transaction as a modification that reduces the lease term in accordance with ASC 842-10-25-11(b) rather than as a modification that terminates the lease in accordance with ASC 842-10-25-11(c).

The Company will update our disclosure in future filings, beginning with the quarterly report on Form 10-Q for the quarter ended September 30, 2024, to clarify that the counterparties to both leases were related parties to each other as the basis for the combination of the associated contracts.

Please contact me by telephone at 281.371.9297 or via email at Kelly.Rosser@netpower.com with any additional questions.

Sincerely,

NET Power Inc.

/s/ Kelly Rosser

Kelly Rosser Chief Accounting Officer