Supernova Partners Acquisition Co II, Ltd. 4301 50th Street NW Suite 300 PMB 1044 Washington, D.C. 20016

January 13, 2022

VIA EDGAR

United States Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549

Attention: Ryan Rohn, Senior Staff Accountant Stephen Krikorian, Accounting Branch Chief Priscilla Dao, Staff Attorney Joshua Shainess, Legal Branch Chief

Re: Supernova Partners Acquisition Co II, Ltd. Amendment No. 1 to Registration Statement on Form S-4 Filed on December 20, 2021 File No. 333-260692

To the addressees set forth above:

This letter sets forth the responses of Supernova Partners Acquisition Co II, Ltd. (the "*Company*," "*we*," "*our*" and "*us*") to the comments set forth in the comment letter of the staff of the Securities and Exchange Commission (the "*Staff*") dated January 5, 2022 (the "*Comment Letter*") relating to Registration Statement on Form S-4 filed on November 3, 2021, as amended on December 20, 2021 (the "*Registration Statement*"). The Company has also revised the Registration Statement in response to the Staff's comments and, concurrently with delivery of this letter, filed with the Securities and Exchange Commission an amendment to the Registration Statement ("*Amendment No. 2*") which reflects these revisions and generally updates certain information in the Registration Statement.

To assist your review, set forth below in bold are the comments of the Staff contained in the Comment Letter and immediately below each comment is the response of the Company with respect thereto or a statement identifying the location in Amendment No. 2 of the requested disclosure or revised disclosure. Please note that all references to page numbers in our responses refer to the page numbers of the proxy statement/consent solicitation statement/prospectus included in Amendment No. 2. Capitalized terms used but not defined herein have the meanings ascribed to such terms in Amendment No. 2.

Risks Related to Rigetti's Financial Condition and Status as an Early Stage Company, page 59

1. Supplement your risk factor disclosure by acknowledging that Rigetti has in the past failed to meet its publicly announced timetables for technological

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advancement. For example, disclose that in 2018, Rigetti publicly announced plans to produce a quantum computer with 128 qubits within one year of such statement.

Response: The Company has revised the Registration Statement in response to the Staff's comment. Please see pages 59 and 63 of Amendment No. 2.

2. Your disclosure here that the highest number of qubits Rigetti has deployed in a quantum computer is 40 qubits appears to conflict with other references in the prospectus and with public statements from Rigetti's management. For example, the disclosure on page 156 and assertions in recent filings made under Rule 425 suggest that Rigetti currently has an 80 qubit system. Please reconcile these statements in your next filing.

Response: The Company has revised the Registration Statement in response to the Staff's comment. Please see pages 59 and 246 of Amendment No. 2.

Critical Accounting Policies and Estimates, page 274

3. We note your response to prior comment 35 that the majority of your development contracts are fixed fee arrangements. As such, please provide disclosure that addresses the potential negative impact to your profitability if you do not complete these fixed fee arrangements within budget and on time. In addition, please consider whether this possibility should be addressed in a risk factor disclosure.

Response: The Company has revised the Registration Statement in response to the Staff's comment. Please see pages 75-76 and 275 of Amendment No. 2.

Restatement to Previously Reported Financial Statement, page F-8

4. We note that the company filed an Item 8.01 Form 8-K on March 10, 2021 that included an audited balance sheet dated March 4, 2021. We further note that the company has restated such balance sheet here on an unaudited basis. Please explain why the restated balance sheet was not subject to an audit.

Response: The Company advised the Staff that is has filed an amendment to the Form 8-K previously filed on March 10, 2021 to restate the audited balance sheet dated March 4, 2021.

General

5. Revise throughout to reflect the \$45 million additional PIPE commitment. Discuss how the parties negotiated these additional commitments at a premium to the previously announced PIPE.

Response: The Company has revised the Registration Statement in response to the Staff's comment to reflect the \$45 million additional PIPE commitment, along with a discussion of party negotiations regarding this subsequent PIPE financing. Please see pages 39, 142-43, 151-52, and 216 of Amendment No. 2.

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We hope the foregoing answers are responsive to your comments. Please direct any questions or comments regarding this correspondence to our counsel, Ryan J. Maierson and Patrick H. Shannon of Latham & Watkins LLP, at (713) 546-7420 or (202) 637-1028, respectively.

Very truly yours,

Supernova Partners Acquisition Co II, Ltd.

By: /s/ Michael Clifton

Name: Michael Clifton Title: Chief Financial Officer

cc: Robert D. Reid, Supernova Partners Acquisition Co II, Ltd. Chad Rigetti, Rigetti Holdings, Inc. Taryn Naidu, Rigetti Holdings, Inc. Ryan J. Maierson, Latham & Watkins LLP Patrick H. Shannon, Latham & Watkins LLP Adam Dinow, Cooley LLP Rupa Briggs, Cooley LLP David Silverman, Cooley LLP