November 30, 2021

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

Re: Supernova Partners

Acquisition Co II, Ltd.

Registration

Statement on Form S-4

Filed November 3,

2021

File No. 333-260692

Dear Mr. Clifton:

 $\label{eq:weak-decomposition} \mbox{We have reviewed your registration statement and have the following comments. In}$

some of our comments, we may ask you to provide us with information so we may better

understand your disclosure.

 $\hbox{ Please respond to this letter by amending your registration statement and providing the } \\$

requested information. If you do not believe our comments apply to your facts and $% \left(1\right) =\left(1\right) +\left(1\right) +$

circumstances or do not believe an amendment is appropriate, please tell us why in your $\,$

response.

 $\label{prop:continuous} \mbox{ After reviewing any amendment to your registration statement and the information you}$

provide in response to these comments, we may have additional comments.

Registration Statement on Form S-4

Summary of the Proxy Statement/Prospectus
The Supernova Board's Reasons for the Business Combination, page 35

1. Please clarify if the sponsor and its affiliates can earn a positive rate of return on their investment, even if other SPAC shareholders experience a negative rate of return in the post-business

combination company.

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PIPE Financing, page 37

2. Please disclose if Supernova s sponsor, directors, officers or their affiliates will participate

in the PIPE financing.

Ownership of New Rigetti, page 38

3. Please revise your tabular disclosures here and on page 13 to show the potential impact

of interim levels of redemptions. In this respect, we note that Rigetti may waive the $\,$

requirement that Supernova have at least \$165,000,000 of available cash at the Closing.

Accordingly, your disclosure of the impact of redemptions at varying levels should

include the scenario whereby Rigetti waives that condition and the $\ensuremath{\mathsf{maximum}}$ redemption

scenario is greater than 72% of public shares redeemed.
Please revise to disclose all possible sources and extent of dilution

that shareholders who elect not to redeem their shares may experience in connection with the business

combination. Provide disclosure of the impact of each significant source of dilution,

including the amount of equity held by founders, convertible securities, including warrants

retained by redeeming shareholders, at each of the redemption levels detailed in your

sensitivity analysis, including any needed assumptions.

5. Quantify the value of warrants, based on recent trading prices, that may be retained by

redeeming stockholders assuming maximum redemptions and identify any material

resulting risks.

6. It appears that underwriting fees remain constant and are not adjusted based on

redemptions. Revise your disclosure to disclose the effective underwriting fee on \boldsymbol{a}

percentage basis for shares at each redemption level presented in your sensitivity analysis $% \left(1\right) =\left(1\right) +\left(1\right)$

related to dilution.

7. Please revise the references to a section entitled Consideration to Rigetti Equityholders in

the Business Combination $\,\,$ throughout the registration statement as we are unable to

locate this section.

Interests of Supernova's Directors and Executive Officers in the Business Combination, page 42

8. Expand this section to also address the interests and associated conflicts pertaining to your

Sponsor and its affiliates.

9. Please quantify the aggregate dollar amount and describe the nature of what your Sponsor $\ \ \,$

and its affiliates have at risk that depends on completion of a business combination.

Include the current value of securities held, loans extended, fees due, and out-of-pocket $\,$

similar disclosure for the company s officers and directors, if material.

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Summary of Risk Factors, page 49

10. Highlight the risk that your Sponsor will benefit from the completion of a business

combination and may be incentivized to complete an acquisition of a less favorable target $% \left(1\right) =\left(1\right) +\left(1\right) +$

company or on terms less favorable to shareholders rather than liquidate.

Risk Factors, page 55

11. Disclose the material risks to unaffiliated investors presented by taking the company

 $\,$ public through a merger rather than an underwritten offering. These risks could include

the absence of due diligence conducted by an underwriter that would be subject to liability

for any material misstatements or omissions in a registration

Rigetti's business is currently dependent upon its relationship..., page 60

12. We note your disclosure in this risk factor and on page 61 of your reliance on certain

cloud providers, including Amazon Web Services, to run your QCaaS and

businesses. Please disclose the material terms of your agreements with such providers,

including the term and any termination provisions. Rigetti's future growth and success depend..., page 65

13. Please disclose the percentage of your revenues that are generated by sales to government

entities for the periods presented in the proxy statement/prospectus, here and in other $\,$

sections as appropriate.

Supernova Initial Shareholders Agreements, page 113

14. The disclosure indicates that the Initial Shareholders, Rigetti and/or their directors,

officers, advisors or respective affiliates may purchase public shares or provide incentives

through privately negotiated transactions in efforts to increase the likelihood that the $\,$

business combination will be consummated. Explain how such purchases would comply

with the requirements of Rule 14e-5 under the Exchange Act. With respect to the $\,$

incentives, tell us whether you currently have any such arrangements and how you intend

to provide disclosure about these arrangements.

Business Combination Proposal

Background of the Transactions, page 135

15. If a sponsor, a member of management or affiliates have a track record with SPACs,

 $\,$ please provide balanced disclosure about this record and the outcomes of the prior

 $\dot{}$ transactions. Please also disclose if the sponsor has other SPACs in the process of

searching for a target company, whether the SPAC s sponsors considered more than one

active SPAC to be the potential acquirer and how the final decision was reached.

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Certain Projected Financial Information for Rigetti, page 146

16. Please revise the discussion of your projected financial information to provide a more

detailed description of the material assumptions used to project revenue growth. Your

disclosure should highlight the assumptions utilized that supports vour accelerated

revenue growth, including number of customers and pricing. Clarify whether the systems

online are assumed to be at or near full capacity for each period presented. Indicate the

scalability of your systems. Explain why you believe you have a reasonable basis to

project this information five years out when your business is in the early stages of

development and there is a high level of uncertainty and risk to achieve and sustain

a technological advantage over your competitors.

17. Disclose whether Rigetti's management or the Supernova Board prepared or considered

forecasted net income (loss) for the projected periods.

18. Provide us with the legal basis for the stated intentions of the parties to not update the

disclosure regarding the prospective financial information "even in the event that any or $% \left(1\right) =\left(1\right) +\left(1\right) +$

all of the underlying assumptions are shown to be in error." Refer generally to Item

10(b)(3)(iii) of Regulation S-K.

19. Please explain how the assumptions regarding the development of multiple generations of

quantum computing systems with increasing qubit counts and fidelities, including the

assumption of the release of a 1,000+ qubit system in 2024 and a 4,000+ qubit system in $\,$

2026, are reasonable. Clarify how these specific figures were determined for use as part $\,$

of the assumptions underlying the financial projections.

Interests of Supernova's Directors and Executive Officers in the Business Combination, page 148

20. Your charter waived the corporate opportunities doctrine. Please address this potential

 $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right)$ conflict of interest and whether it impacted your search for an acquisition target.

21. We note that certain shareholders agreed to waive their redemption rights. Please describe

any consideration or incentives provided in exchange for this agreement. $% \label{eq:consideration}%$

U.S. Federal Income Tax Considerations, page 190

22. We note from your disclosure in this section that the parties intend for the domestication

to qualify as a reorganization under Section 368(a) of the Tax Code. Therefore, please file ${}^{\circ}$

an opinion of counsel supporting such a conclusion. Refer to Item 601(b)(8) of Regulation

S-K. See also Staff Legal Bulletin No. 19 for further guidance.

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Unaudited Pro Forma Condensed Combined Financial Information, page 204

23. We note your pro forma adjustment (BB) for \$22.3\$ million of Supernova s transaction

costs related to the Business Combination and related transactions were recorded as an $\,$

adjustment to the Pro Forma Condensed Combined Statements of Operations. Since

the Business Combination will be treated as the equivalent of Rigetti issuing stock for the $\,$

 $\,$ net assets of Supernova, the transaction costs related to the SPAC merger should be

treated as a reduction of proceeds raised. We refer you to SEC Staff Accounting Bulletin

Topic 5.A. That is, the transaction cost should be recorded as a reduction of paid-in- $\,$

capital instead of expensed.

Cost of Revenue, page 253

24. Please clarify whether the cost of revenue includes all direct or indirect cost associated

with providing your offering. In this regard, we note that "facility costs (including $% \left(1\right) =\left(1\right) +\left(1$

leases)" and "depreciation to support Rigetti $\,$ s operations" are included in General and

Administration expense. Clarify why these cost are not included in your Cost of

Revenue. Ensure that your presentation complies with SAB Topic 11(B). Be advised that

since you are presenting a gross profit subtotal, the cost of revenue must include all cost.

Please advise.

Key Components of Results of Operations

Revenue, page 253

25. As noted on page F-46, development contracts and other services represented 66% of your

total revenue for the six months ended July 31, 2021. Please expand your disclosure to

explain the nature of these development contracts including whether such contracts are

recurring in nature.

Results of Operations

Comparison of the Six Months Ended July 31, 2021 and 2020, page 254

26. Please expand your results of operations disclosures to quantify the material factors

resulting in changes period over period. Similar concerns apply to

your disclosures beginning on page 256. Refer to Section III.B of SEC Release No.

33-8350.

Cost of Revenue, page 256

27. Your statement to explain the significant increase in cost of revenue, that the increase

was due to the expansion of development contracts and QCaaS revenue seen in 2020, $\,$

does not appear to fully explain what costs increased as a result of the increase in revenue.

Expand your disclosure to further identify and quantify the related costs. Refer to Section $\,$

III.B of SEC Release No. 33-8350.

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Cash Flows

Cash Flows Used in Operating Activities, page 259

28. We note that your discussion of cash flows from operating activities is limited in nature.

This does not appear to contribute substantively to an understanding of your cash flows.

Rather, it repeats items that are readily determinable from the financial statements. When

 $\,$ preparing the discussion and analysis of operating cash flows, you should address material

changes in the underlying drivers that affect these cash flows. These disclosures should $% \left(1\right) =\left(1\right) +\left(1\right) +\left$

also include a discussion of the underlying reasons for changes in working capital items

that affect operating cash flows. Refer to Section IV.B.1 of SEC Release $33\mbox{-}8350$.

Management of New Rigetti Following the Business Combination, page 276

29. Please provide details of the business experience of Mr. Sereda and Ms. Birch for the past $\,$

five years, including principal occupations and employment and the name and principal $% \left(1\right) =\left(1\right) +\left(1$

business of any corporation or other organization in which such occupations and $% \left(1\right) =\left(1\right) +\left(1\right) +\left($

employment were carried on. Refer to Item 401(e) of Regulation S-K. Beneficial Ownership of Securities, page 282

30. Provide disclosure of the sponsor and its affiliates total potential ownership interest in the

combined company, assuming exercise and conversion of all securities.

Notes to Condensed Consolidated Financial Statements

Note 2. Summary of Significant Accounting Policies

Concentrations of Credit Risk, page F-45

31. Please expand your significant customer disclosure to break out single customers that

amount to 10% or more of revenue for your interim periods similar to your disclosure on $% \left(1\right) =\left(1\right) +\left(1\right) +\left($

page F-65. Refer to ASC 280-10-50-42.

Note 7. Segments, page F-48

32. Expand your disclosure to disclose the amount of revenues attributed to the United States,

as well as disclose the basis for attributing revenues from external customers to individual $\ensuremath{\mathsf{Customers}}$

countries. In addition, disclose long-lived assets located in the United States as well as $\,$

in foreign countries. Refer to ASC 280-10-50-41. Similar concerns apply to your $\,$

disclosures on page F-82.

Note 8. Equity Plans, page F-48

33. Please provide us with a breakdown of all equity awards granted starting on February 1,

2021 and leading up to your filing, including the fair value of the underlying common

stock used to value such awards as determined by your board of directors. To the extent $% \left(1\right) =\left(1\right) +\left(1\right) +\left($

there were any significant fluctuations in the fair values from period to period, please $% \left(1\right) =\left(1\right) +\left(1\right) +\left$

describe for us the factors that contributed to these fluctuations, including any intervening

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events within the Company or changes in your valuation assumptions or methodology.

Compare the most recent valuations for options granted to the fair value of the shares of $% \left(1\right) =\left(1\right) +\left(1\right) +$

commons stock as determined by the exchange ratio in the merger agreement.

Note 2. Summary of Significant Accounting Policies Revenue Recognition, page F-61

34. Expand your disclosure to clarify your development contracts' types (i.e., fixed-price

and/or time and materials).

Note 3 Revenue Recognition, page F-67

35. Consider disaggregating revenue by contract fee type. For example, present revenue

recognized from QCaaS subscription-based access separately from usage-based access.

We refer you to ASC 606-10-55-91(d).

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 $\dot{u}s$ to review any amendment prior to the requested effective date of the registration statement.

You may contact Ryan Rohn, Senior Staff Accountant, at (202) 551-3739 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 Priscilla Dao, Staff

Attorney, at (202) 551-5997 or Joshua Shainess, Legal Branch Chief, at (202) 551-7951 with any other questions.

Sincerely,

FirstName LastNameMichael Clifton

Division of Corporation

Finance

Comapany NameSupernova Partners Acquisition Co II, Ltd.

Office of Technology

November 30, 2021 Page 7 cc: Om K. Pandya FirstName LastName