



DIVISION OF
CORPORATION FINANCE

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

August 27, 2021

Eric Scheyer
Chief Executive Officer
Star Peak Corp II
1603 Orrington Avenue, 13th Floor
Evanston, IL 60201

Re: Star Peak Corp II
Amendment No. 3 to Registration Statement on Form S-4
Filed August 12, 2021
File No. 333-256161

Dear Mr. Scheyer:

We have reviewed your amended 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. Unless we note otherwise, our references to prior comments are to comments in our July 27, 2021 letter.

Amendment No. 3 to Registration Statement on Form S-4

Material U.S. Federal Income Tax Consequences

Tax Consequences of the Merger to U.S. Holders of Existing Benson Hill Common Stock, page 207

1. We note your revised disclosure in response to prior comment 4 that it is the opinion of Kirkland & Ellis LLP that the merger "should" qualify as a "reorganization" for U.S. federal income tax purposes within the meaning of Section 368(a) of the Code. If there is uncertainty regarding the tax treatment of the transactions, counsel may issue a "should" or "more likely than not" opinion to make clear that the opinion is subject to a degree of

Eric Scheyer
Star Peak Corp II
August 27, 2021
Page 2

uncertainty, and explain why it cannot give a firm opinion. For guidance, see Staff Legal Bulletin No. 19 (October 14, 2011). Please obtain and file a revised opinion, and revise related disclosure accordingly.

You may contact Joseph Klinko, Staff Accountant, at (202) 551-3824 or Jenifer Gallagher, Staff Accountant, at (202) 551-3706 if you have questions regarding comments on the financial statements and related matters. Please contact Karina Dorin, Staff Attorney, at (202) 551-3763 or Laura Nicholson, Special Counsel, at (202) 551-3584 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Energy & Transportation

cc: Bryan D Flannery