

VIA EDGAR AND BY FEDERAL EXPRESS

Jennifer Monick
United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-0404

**Re: Hannon Armstrong Sustainable Infrastructure Capital, Inc.
Registration Statement on Form S-11
File No. 333-186711**

Dear Ms. Monick:

On behalf of our client, Hannon Armstrong Sustainable Infrastructure Capital, Inc., a Maryland corporation (the "Company"), set forth below are the responses of the Company to our conversation on April 15, 2013 relating to the Company's letter, which it submitted to the Staff of the Division of Corporation Finance of the Securities and Exchange Commission on April 12, 2013 (the "April 12 Letter").

The Company attaches hereto: (1) the requested back up schedule to support the assertion in comment #7 of the April 12 Letter that Hannon Armstrong Capital, LLC's retained interest in Hudson Ranch TE Holdings LLC was reduced to less than 3% and (2) the requested additional significance testing back up schedule related to Hudson Ranch TE Holdings LLC.

If you have any questions or comments regarding the foregoing, please contact the undersigned at 212-878-8527 or Andrew S. Epstein at 212-878-8332.

Sonia Gupta Barros, Esq.
Angela McHale, Esq.
United States Securities and Exchange Commission
April 16, 2013
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Very truly yours,

/s/ Jay L. Bernstein
Jay L. Bernstein

Enclosures

cc: Securities and Exchange Commission
Sonia Gupta Barros
Angela McHale
Kevin Woody
Rochelle Plesset

Hannon Armstrong Sustainable Infrastructure Capital, Inc.
Jeffrey W. Eckel
Steven L. Chuslo
J. Brendan Herron

Fried, Frank, Harris, Shriver & Jacobson LLP
Paul D. Tropp

Clifford Chance US LLP
Andrew S. Epstein

The following calculations set for the computation of the significant asset, investment, and income tests for Hannon Armstrong Capital LLC's ("HAC") economic interest in Hudson Ranch TE Holdings LLC ("HRTE") at September 30, 2012

<u>Asset Test</u>	<u>As of 9/30/2012</u>
HRTE total assets	\$402,171,773
HAC interest in HRTE	1.43%
HAC's proportionate share	\$ 5,764,938
HAC total assets	\$232,462,897
Percentage	<u>2.5%</u>
Greater than 20%	No
<u>Investment Test</u>	<u>As of 9/30/2012</u>
Investment in HRTE	\$ —
HAC interest in HRTE	1.43%
HAC's proportionate share	\$ —
HAC total assets	\$232,462,897
Percentage	<u>0.0%</u>
Greater than 20%	No
<u>Income Test</u>	<u>Year ended 9/30/2012</u>
Income (loss) of HRTE	\$ (407,828)
HAC interest in HRTE	1.43%
HAC's proportionate share	\$ (5,846)
Net income of HAC ¹	\$ 3,804,466
Percentage	<u>-0.2%</u>
Greater than 20%	No

¹ HAC net income, as adjusted for the HRTE loss would be \$3,810,312 (\$3,804,466 plus \$5,846), which would not affect the conclusion of the income test.

The following table sets forth the computation of the Hannon Armstrong Capital LLC (HAC) economic interest in Hudson Ranch TE Holdings LLC at September 30, 2012:

HAC investment in EnergySource LLC (via HA EnergySource Holdings LLC)	40.20%
	x
EnergySource LLC investment in Hudson Ranch I Holdings, LLC	28.30%
	x
Hudson Ranch I Holdings, LLC investment in Hudson Ranch TE Holdings	12.60%
	x
Net Economic Interest	<u>1.43%</u>