

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 10-Q**

**QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2019

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number: 001-36642

**VIVINT SOLAR, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)  
**1800 West Ashton Blvd.**  
**Lehi, UT**  
(Address of principal executive offices)

**45-5605880**  
(I.R.S. Employer  
Identification Number)

**84043**  
(Zip Code)

Registrant's telephone number, including area code: (877) 404-4129

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
Emerging growth company	<input checked="" type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value \$0.01 per share	VSLR	New York Stock Exchange

As of May 1, 2019, the registrant had 120,611,637 shares of common stock, \$0.01 par value per share, outstanding.

**Vivint Solar, Inc.**  
**Quarterly Report on Form 10-Q**  
**TABLE OF CONTENTS**

	<u>Page</u>
<b><u>PART I – FINANCIAL INFORMATION</u></b>	
<b>Item 1.</b>	
<a href="#">Financial Statements (Unaudited)</a>	2
<a href="#">Condensed Consolidated Balance Sheets</a>	2
<a href="#">Condensed Consolidated Statements of Operations</a>	3
<a href="#">Condensed Consolidated Statements of Comprehensive Income</a>	4
<a href="#">Condensed Consolidated Statements of Redeemable Non-Controlling Interests and Equity</a>	5
<a href="#">Condensed Consolidated Statements of Cash Flows</a>	6
<a href="#">Notes to Condensed Consolidated Financial Statements</a>	7
<b>Item 2.</b>	26
<b>Item 4.</b>	37
<b><u>PART II – OTHER INFORMATION</u></b>	
<b>Item 1.</b>	38
<b>Item 1A.</b>	38
<b>Item 6.</b>	64
<a href="#">Exhibits</a>	64
<a href="#">Signatures</a>	65

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

Vivint Solar, Inc.

Condensed Consolidated Balance Sheets  
(In thousands, except par value and footnote 1)  
(Unaudited)

	March 31, 2019	December 31, 2018
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 213,474	\$ 219,591
Accounts receivable, net	19,992	14,207
Inventories	11,532	13,257
Prepaid expenses and other current assets	29,294	31,201
Total current assets	274,292	278,256
Restricted cash and cash equivalents	75,010	71,305
Solar energy systems, net	1,590,888	1,938,874
Property and equipment, net	10,180	10,730
Other non-current assets, net	478,013	28,090
TOTAL ASSETS <sup>(1)</sup>	<u>\$ 2,428,383</u>	<u>\$ 2,327,255</u>
<b>LIABILITIES, REDEEMABLE NON-CONTROLLING INTERESTS AND EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 38,937	\$ 45,929
Distributions payable to non-controlling interests and redeemable non-controlling interests	6,591	7,846
Accrued compensation	21,121	25,520
Current portion of long-term debt	147,952	12,155
Current portion of deferred revenue	26,246	30,199
Current portion of finance lease obligation	769	1,921
Accrued and other current liabilities	49,658	42,860
Total current liabilities	291,274	166,430
Long-term debt, net of current portion	1,123,888	1,203,282
Deferred revenue, net of current portion	14,746	13,524
Finance lease obligation, net of current portion	874	505
Deferred tax liability, net	463,156	437,120
Other non-current liabilities	66,369	24,610
Total liabilities <sup>(1)</sup>	1,960,307	1,845,471
Commitments and contingencies (Note 19)		
Redeemable non-controlling interests	118,667	119,572
Stockholders' equity:		
Common stock, \$0.01 par value—1,000,000 authorized, 120,612 shares issued and outstanding as of March 31, 2019; 1,000,000 authorized, 120,114 shares issued and outstanding as of December 31, 2018	1,206	1,201
Additional paid-in capital	577,961	574,248
Accumulated other comprehensive loss	(11,870)	(7,223)
Accumulated deficit	(306,028)	(279,631)
Total stockholders' equity	261,269	288,595
Non-controlling interests	88,140	73,617
Total equity	349,409	362,212
TOTAL LIABILITIES, REDEEMABLE NON-CONTROLLING INTERESTS AND EQUITY	<u>\$ 2,428,383</u>	<u>\$ 2,327,255</u>

(1) The Company's assets as of March 31, 2019 and December 31, 2018 include \$1,915.2 million and \$1,835.8 million consisting of assets of variable interest entities, or VIEs, that can only be used to settle obligations of the VIEs. These assets include solar energy systems, net, of \$1,448.0 million and \$1,752.3 million as of March 31, 2019 and December 31, 2018; other non-current assets, net of \$390.7 million and \$10.9 million as of March 31, 2019 and December 31, 2018; cash and cash equivalents of \$57.7 million and \$62.4 million as of March 31, 2019 and December 31, 2018; accounts receivable, net, of \$13.0 million and \$6.6 million as of March 31, 2019 and December 31, 2018; restricted cash and cash equivalents of \$4.1 million and \$2.4 million as of March 31, 2019 and December 31, 2018; and prepaid expenses and other current assets of \$1.8 million and \$1.3 million as of March 31, 2019 and December 31, 2018. The Company's liabilities as of March 31, 2019 and December 31, 2018 included \$122.2 million and \$80.8 million of liabilities of VIEs whose creditors have no recourse to the Company. These liabilities include distributions payable to non-controlling interests and redeemable non-controlling interests of \$6.6 million and \$7.8 million as of March 31, 2019 and December 31, 2018; deferred revenue of \$13.0 million and \$12.0 million as of March 31, 2019 and December 31, 2018; long-term debt of \$96.4 million and \$55.0 million as of March 31, 2019 and December 31, 2018; accrued and other current liabilities of \$5.2 million and \$4.9 million as of March 31, 2019 and December 31, 2018; and other non-current liabilities of \$1.0 million and \$1.0 million as of March 31, 2019 and December 31, 2018. For further information see Note 14—Investment Funds.

See accompanying notes to condensed consolidated financial statements.

**Vivint Solar, Inc.**  
**Condensed Consolidated Statements of Operations**  
(In thousands, except per share data)  
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
<b>Revenue:</b>		
Customer agreements and incentives	\$ 39,603	\$ 31,114
Solar energy system and product sales	29,768	37,136
Total revenue	69,371	68,250
<b>Cost of revenue:</b>		
Cost of revenue—customer agreements and incentives	40,191	38,687
Cost of revenue—solar energy system and product sales	17,263	26,045
Total cost of revenue	57,454	64,732
Gross profit	11,917	3,518
<b>Operating expenses:</b>		
Sales and marketing	29,634	11,125
Research and development	469	486
General and administrative	23,049	19,987
Total operating expenses	53,152	31,598
Loss from operations	(41,235)	(28,080)
Interest expense, net	19,127	16,922
Other expense (income), net	1,385	(2,261)
Loss before income taxes	(61,747)	(42,741)
Income tax expense	27,487	18,643
Net loss	(89,234)	(61,384)
Net loss attributable to non-controlling interests and redeemable non-controlling interests	(62,992)	(48,408)
Net loss attributable to common stockholders	\$ (26,242)	\$ (12,976)
<b>Net loss per share attributable to common stockholders:</b>		
Basic and diluted	\$ (0.22)	\$ (0.11)
<b>Weighted-average shares used in computing net loss per share attributable to common stockholders:</b>		
Basic and diluted	120,307	115,155

See accompanying notes to condensed consolidated financial statements.

**Vivint Solar, Inc.**  
**Condensed Consolidated Statements of Comprehensive Income**  
**(In thousands)**  
**(Unaudited)**

	Three Months Ended March 31,	
	2019	2018
Net loss attributable to common stockholders	\$ (26,242)	\$ (12,976)
Other comprehensive (loss) income:		
Unrealized (losses) gains on cash flow hedging instruments (net of tax effect of \$(1,777) and \$1,394)	(4,883)	3,749
Less: Interest (expense) income on derivatives recognized into earnings (net of tax effect of \$(86) and \$103)	(236)	278
Total other comprehensive (loss) income	(4,647)	3,471
Comprehensive loss	\$ (30,889)	\$ (9,505)

See accompanying notes to condensed consolidated financial statements.

Vivint Solar, Inc.

Condensed Consolidated Statements of Redeemable Non-Controlling Interests and Equity  
(In thousands)  
(Unaudited)

	Redeemable Non- Controlling Interests	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity	Non- Controlling Interests	Total Equity
		Shares	Amount						
		<b>Balance — December 31, 2018</b>	\$ 119,572						
Cumulative-effect adjustment from adoption of new ASUs	—	—	—	—	—	(155)	(155)	—	(155)
Stock-based compensation expense	—	—	—	3,679	—	—	3,679	—	3,679
Issuance of common stock, net	—	498	5	34	—	—	39	—	39
Contributions from non-controlling interests and redeemable non-controlling interests	9,813	—	—	—	—	—	—	74,555	74,555
Distributions to non-controlling interests and redeemable non-controlling interests	(2,191)	—	—	—	—	—	—	(5,567)	(5,567)
Total other comprehensive loss	—	—	—	—	(4,647)	—	(4,647)	—	(4,647)
Net loss	(8,527)	—	—	—	—	(26,242)	(26,242)	(54,465)	(80,707)
<b>Balance — March 31, 2019</b>	<u>\$ 118,667</u>	<u>\$ 120,612</u>	<u>\$ 1,206</u>	<u>\$ 577,961</u>	<u>\$ (11,870)</u>	<u>\$ (306,028)</u>	<u>\$ 261,269</u>	<u>\$ 88,140</u>	<u>\$ 349,409</u>

	Redeemable Non- Controlling Interests	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Retained Earnings (Accumulated Deficit)	Total Stockholders' Equity	Non- Controlling Interests	Total Equity
		Shares	Amount						
		<b>Balance — December 31, 2017</b>	\$ 122,444						
Cumulative-effect adjustment from adoption of new ASUs	—	—	—	—	3,318	(477,146)	(473,828)	—	(473,828)
Stock-based compensation expense	—	—	—	2,969	—	—	2,969	—	2,969
Issuance of common stock, net	—	230	2	205	—	—	207	—	207
Contributions from non-controlling interests and redeemable non-controlling interests	42,771	—	—	—	—	—	—	—	—
Distributions to non-controlling interests and redeemable non-controlling interests	(2,093)	—	—	—	—	—	—	(7,093)	(7,093)
Total other comprehensive income	—	—	—	—	3,471	—	3,471	—	3,471
Net loss	(33,015)	—	—	—	—	(12,976)	(12,976)	(15,393)	(28,369)
<b>Balance — March 31, 2018</b>	<u>\$ 130,107</u>	<u>\$ 115,329</u>	<u>\$ 1,153</u>	<u>\$ 562,962</u>	<u>\$ 13,694</u>	<u>\$ (277,015)</u>	<u>\$ 300,794</u>	<u>\$ 57,629</u>	<u>\$ 358,423</u>

See accompanying notes to condensed consolidated financial statements.

**Vivint Solar, Inc.**  
**Condensed Consolidated Statements of Cash Flows**  
(In thousands)  
(Unaudited)

	<b>Three Months Ended</b>	
	<b>March 31,</b>	
	<b>2019</b>	<b>2018</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net loss	\$ (89,234)	\$ (61,384)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	17,659	16,443
Deferred income taxes	27,727	18,969
Stock-based compensation	3,679	2,969
Loss on solar energy systems and property and equipment	1,233	570
Non-cash interest and other expense	1,645	2,007
Reduction in lease pass-through financing obligation	(695)	(687)
Losses (gains) on interest rate swaps	1,384	(2,262)
Changes in operating assets and liabilities:		
Accounts receivable, net	(5,785)	1,429
Inventories	1,725	6,807
Prepaid expenses and other current assets	2,746	11,746
Other non-current assets, net	(26,539)	385
Accounts payable	1,876	374
Accrued compensation	(4,068)	(2,351)
Deferred revenue	(2,731)	(9,083)
Accrued and other liabilities	(615)	(103)
Net cash used in operating activities	<u>(69,993)</u>	<u>(14,171)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Payments for the cost of solar energy systems	(64,526)	(72,208)
Payments for property and equipment	(291)	(40)
Proceeds from disposals of solar energy systems and property and equipment	649	775
Net cash used in investing activities	<u>(64,168)</u>	<u>(71,473)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Proceeds from investment by non-controlling interests and redeemable non-controlling interests	84,368	42,771
Distributions paid to non-controlling interests and redeemable non-controlling interests	(9,013)	(18,122)
Proceeds from long-term debt	61,355	40,000
Payments on long-term debt	(5,593)	(7,748)
Proceeds from lease pass-through financing obligation	864	852
Principal payments on finance lease obligations	(271)	(1,015)
Proceeds from issuance of common stock	39	207
Net cash provided by financing activities	<u>131,749</u>	<u>56,945</u>
NET DECREASE IN CASH AND CASH EQUIVALENTS, INCLUDING RESTRICTED AMOUNTS	(2,412)	(28,699)
CASH AND CASH EQUIVALENTS, INCLUDING RESTRICTED AMOUNTS—Beginning of period	290,896	154,938
CASH AND CASH EQUIVALENTS, INCLUDING RESTRICTED AMOUNTS—End of period	<u>\$ 288,484</u>	<u>\$ 126,239</u>
<b>NONCASH INVESTING AND FINANCING ACTIVITIES:</b>		
Costs of solar energy systems included in changes in accounts payable, accrued compensation and accrued and other liabilities	<u>\$ 40,256</u>	<u>\$ (2,518)</u>
Right-of-use assets obtained in exchange for new operating lease liabilities	<u>\$ 6,910</u>	<u>\$ —</u>
Right-of-use assets obtained in exchange for new finance lease liabilities	<u>\$ 1,053</u>	<u>\$ 199</u>
Receivable for state tax credits recorded as a reduction to solar energy system costs	<u>\$ —</u>	<u>\$ 4</u>

See accompanying notes to condensed consolidated financial statements.

**Vivint Solar, Inc.**

**Notes to Condensed Consolidated Financial Statements**

**(Unaudited)**

**1. Organization**

Vivint Solar, Inc. and its subsidiaries are collectively referred to as the “Company.” The Company most commonly offers solar energy to residential customers through long-term customer contracts, such as power purchase agreements (“PPAs”) and legal-form leases (“Solar Leases”). The Company also offers its customers the option to purchase solar energy systems (“System Sales”) through third-party loan offerings or a cash purchase. The Company enters into customer contracts through a sales organization that primarily uses a direct-to-home sales model. The long-term customer contracts under PPAs and Solar Leases are typically for 20 years and require the customer to make monthly payments to the Company.

The Company has formed various investment funds and entered into long-term debt facilities to monetize the recurring customer payments under its long-term customer contracts and investment tax credits (“ITCs”), accelerated tax depreciation and other incentives associated with residential solar energy systems. The Company uses the cash received from the investment funds, long-term debt facilities and cash generated from operations, including System Sales, to finance a portion of the Company’s variable and fixed costs associated with installing solar energy systems.

**2. Summary of Significant Accounting Policies**

***Basis of Presentation and Principles of Consolidation***

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (“GAAP”) and applicable rules and regulations of the Securities and Exchange Commission (“SEC”) regarding interim financial reporting. Certain information and note disclosures normally included in the financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. As such, these unaudited condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and accompanying notes included in the Company’s annual report on Form 10-K dated as of March 5, 2019. The unaudited condensed consolidated financial statements were prepared on the same basis as the audited consolidated financial statements and, in the opinion of management, reflect all adjustments (all of which were considered of normal recurring nature) considered necessary to present fairly the Company’s financial results. The results of the three months ended March 31, 2019 are not necessarily indicative of the results to be expected for the fiscal year ending December 31, 2019 or for any other interim period or other future year.

The unaudited condensed consolidated financial statements reflect the accounts and operations of the Company and those of its subsidiaries in which the Company has a controlling financial interest. The Company uses a qualitative approach in assessing the consolidation requirement for variable interest entities (“VIEs”). This approach focuses on determining whether the Company has the power to direct the activities of the VIE that most significantly affect the VIE’s economic performance and whether the Company has the obligation to absorb losses, or the right to receive benefits, that could potentially be significant to the VIE. All of these determinations involve significant management judgments and estimates. The Company has determined that it is the primary beneficiary in the operational VIEs in which it has an equity interest. The Company evaluates its relationships with the VIEs on an ongoing basis to ensure that it continues to be the primary beneficiary. All intercompany transactions and balances have been eliminated in consolidation. For additional information, see Note 14—Investment Funds.

The condensed consolidated statements of operations items formerly captioned “Operating leases and incentives” and “Cost of revenue—operating leases and incentives” will now be captioned “Customer agreements and incentives” and “Cost of revenue—customer agreements and incentives” beginning in the current period. The condensed consolidated balance sheet items formerly captioned “Current portion of capital lease obligation” and “Capital lease obligation, net of current portion” will now be captioned “Current portion of finance lease obligation” and “Finance lease obligation, net of current portion” beginning in the current period. Amounts in these balance sheet items were capital leases under ASC 840 in periods ending prior to January 1, 2019, while amounts in these balance sheet items are finance leases under ASC 842 in periods ending subsequent to January 1, 2019. See “—Leases” below for further explanation of these changes.

### ***Use of Estimates***

The preparation of the condensed consolidated financial statements requires management to make estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. The Company regularly makes significant estimates and assumptions including, but not limited to, ITCs; revenue recognition; solar energy systems, net; the impairment analysis of long-lived assets; stock-based compensation; the provision for income taxes; the valuation of derivative financial instruments; the recognition and measurement of loss contingencies; and non-controlling interests and redeemable non-controlling interests. The Company bases its estimates on historical experience and on various other assumptions believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results could differ materially from those estimates.

### ***Liquidity***

In order to grow, the Company requires cash to finance the deployment of solar energy systems. As of the date of this filing, the Company will require additional sources of cash beyond current cash balances, and currently available financing facilities to fund long-term planned growth. If the Company is unable to secure additional financing when needed, or upon desirable terms, the Company may be unable to finance installation of customers' systems in a manner consistent with past performance, cost of capital could increase, or the Company may be required to significantly reduce the scope of operations, any of which would have a material adverse effect on its business, financial condition, results of operations and prospects. While the Company believes additional financing is available and will continue to be available to support current levels of operations, the Company believes it has the ability and intent to reduce operations to the level of available financial resources for at least the next 12 months from the date of this report, if necessary.

### ***Performance Obligation—Solar Energy system and Product Sales***

For certain System Sales, the company provides limited post-sale services to monitor the productivity of the solar energy system for 20 years after it has been placed into service. The Company allocates a portion of the transaction price to the monitoring services by estimating the fair market price that the Company would charge for these services if offered separately from the sale of the solar energy system. As of March 31, 2019 and December 31, 2018, the Company had allocated deferred revenue of \$3.7 million and \$3.3 million to monitoring services that will be recognized over the term of the monitoring services.

### ***Leases***

The Company adopted Accounting Standards Update ("ASU") 2016-02, *Leases* ("Topic 842") and its subsequent updates effective January 1, 2019. These updates are intended to increase transparency and comparability among organizations by recognizing right-of-use assets and lease liabilities on the condensed consolidated balance sheets and disclosing key information about leasing arrangements. The Company utilized the additional transition method permitted by ASU 2018-11 and adopted Topic 842 using a modified retrospective method with a cumulative-effect adjustment to its accumulated deficit as of January 1, 2019. As such, comparative periods ending prior to January 1, 2019 are presented in accordance with ASC 840 and periods ending after January 1, 2019 are presented in accordance with Topic 842. The impact to the accumulated deficit as a result of adopting ASU 2016-02 was a net reduction of approximately \$0.2 million. The Company did not use the transitional practical expedients allowed under Topic 842, and as such, the Company reassessed all contracts existing at the adoption date of January 1, 2019. The Company elected to treat leases with lease terms of 12 months or less as short-term leases. No right-of-use assets or lease liabilities are recognized for short-term leases. The Company has also elected not to separate lease components from non-lease components for all classes of leased assets except for building leases.

The adoption of this ASU resulted in right-of-use assets of \$34.6 million related to operating leases being recognized in other non-current assets, net on the condensed consolidated balance sheets as of January 1, 2019. Corresponding lease liabilities of \$43.8 million related to operating leases were recognized on the condensed consolidated balance sheets as of January 1, 2019, with the current portion recognized in accrued and other current liabilities and the long-term portion recognized in other non-current liabilities. In addition, at January 1, 2019, approximately \$1.0 million of lease-related liabilities were removed from accrued and other current liabilities and approximately \$8.2 million of lease-related liabilities were removed from other non-current liabilities and included as reductions to the initial operating lease right-of-use assets. As of January 1, 2019, finance lease right-of-use assets of \$0.9 million continued to be recorded in property and equipment, net. Any changes in lease terms or estimates subsequent to adoption of the ASU 2016-02 are reflected in the right-of-use assets and lease liabilities.

The Company's PPAs, Solar Leases, and associated rebates and incentives no longer meet the definition of a lease under Topic 842. Accordingly, they are accounted for in accordance with ASC 606 beginning on January 1, 2019. The Company concluded that there was no change to its revenue recognition practices for its PPA revenue stream under ASC 606. For Solar Leases, the Company concluded that the impact of applying ASC 606 is immaterial. The Company also concluded that there was no material change related to the timing of revenue recognition for rebates and incentives under ASC 606. Upon the adoption of Topic 842, the Company no longer capitalizes initial direct costs and amortizes them to the respective cost of revenue line items. Instead, the Company now capitalizes costs of obtaining a contract which meet the "incremental" criteria defined in ASC 340 to other non-current assets, net. These costs are now amortized over the period of benefit to sales and marketing expense on the condensed consolidated statements of operations.

For purposes of comparison, the following tables show how the balances as of December 31, 2018 and for the three months ended March 31, 2018 would have changed if the effects of adopting Topic 842 had been applied to those balances (in thousands):

	December 31, 2018			March 31, 2019
	As Reported	Adjustments	As Adjusted	As Reported
Solar energy systems, net	\$ 1,938,874	\$ (388,087)	\$ 1,550,787	\$ 1,590,888
Other non-current assets, net	28,090	388,087	416,177	478,013

	Three Months Ended March 31,			
	2018			2019
	As Reported	Adjustments	As Adjusted	As Reported
Cost of revenue—customer agreements and incentives	\$ 38,687	\$ (4,080)	\$ 34,607	\$ 40,191
Cost of revenue—solar energy system and product sales	26,045	(5,857)	20,188	17,263
Total cost of revenue	64,732	(9,937)	54,795	57,454
Gross profit	3,518	9,937	13,455	11,917
Sales and marketing	11,125	9,937	21,062	29,634
Total operating expenses	31,598	9,937	41,535	53,152

#### **Software Implementation Costs**

The Company adopted ASU 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract*, effective January 1, 2019. This update clarifies that entities should capitalize implementation costs incurred in cloud computing arrangements that are service contracts, which the Company will now record within other non-current assets, net. Entities expense the capitalized costs over the term of the hosting arrangement. The service element of a hosting arrangement that is a service contract is not affected by this update, meaning service costs will continue to be expensed as incurred. The Company is applying the amendments in this update on a prospective basis. No prior periods were impacted as a result of adopting this ASU.

#### **Recent Accounting Pronouncements**

In June 2016, the Financial Accounting Standards Board (the "FASB") issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. The objective of this update is to provide users of financial statements with more useful information by changing the incurred loss methodology for recognizing credit losses to a more forward-looking methodology that reflects expected credit losses. Under this ASU, the Company's accounts receivable are considered financial assets measured at an amortized cost basis and will need to be presented at the net amount expected to be collected. This ASU will be effective for the Company beginning on January 1, 2020 and will be applied through a modified retrospective approach with a cumulative-effect adjustment to retained earnings as of the first reporting period in which the guidance is effective.

### 3. Fair Value Measurements

The Company measures and reports its cash equivalents at fair value. The following tables set forth the fair value of the Company's financial assets and liabilities included on the condensed consolidated balance sheets measured on a recurring basis by level within the fair value hierarchy (in thousands):

	March 31, 2019			
	Level 1	Level 2	Level 3	Total
<b>Financial Assets</b>				
Interest rate swaps	\$ —	\$ 13	\$ —	\$ 13
<b>Financial Liabilities</b>				
Interest rate swaps	\$ —	\$ 18,751	\$ —	\$ 18,751
	December 31, 2018			
	Level 1	Level 2	Level 3	Total
<b>Financial Assets</b>				
Interest rate swaps	\$ —	\$ 130	\$ —	\$ 130
<b>Financial Liabilities</b>				
Interest rate swaps	\$ —	\$ 11,146	\$ —	\$ 11,146

The interest rate swaps (Level 2) were valued using a discounted cash flow model that incorporates an assessment of the risk of non-performance by the interest rate swap counterparties and the Company. The valuation model uses various observable inputs including contractual terms, interest rate curves, credit spreads and measures of volatility. The Company has interest rate swaps for its Aggregation Facility, which are not designated as hedges, the fair value of which is represented in financial liabilities above. The Company also has interest rate swaps for its Solar Asset Backed Notes, Series 2018-2, which are designated as hedges, the fair value of which is represented in financial liabilities above.

The carrying values and fair values of the Company's long-term debt were as follows (in thousands):

	March 31, 2019		December 31, 2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Floating-rate long-term debt	\$ 645,263	\$ 645,263	\$ 587,358	\$ 587,358
Fixed-rate long-term debt	650,888	685,471	653,031	673,917
Total	\$ 1,296,151	\$ 1,330,734	\$ 1,240,389	\$ 1,261,275

The Company's outstanding principal balance of long-term debt is carried at cost. The Company estimated the fair values of its floating-rate debt facilities (Level 2) to approximate their carrying values as interest accrues at floating rates based on market rates. The Company's fixed-rate debt facilities (Level 2) were valued using quoted prices for the fixed rate debt facilities that are publicly traded, or quoted prices for corporate debt with similar terms for debt facilities that are not publicly traded.

### 4. Inventories

Inventories consisted of the following (in thousands):

	March 31, 2019	December 31, 2018
Solar energy systems held for sale	\$ 10,565	\$ 12,321
Photovoltaic installation products	967	936
Total inventories	\$ 11,532	\$ 13,257

Solar energy systems held for sale are solar energy systems under construction that have yet to be interconnected to the power grid and that will be sold to customers. Solar energy systems held for sale are stated at the lower of cost, on a first-in, first-out basis, or net realizable value. Photovoltaic installation products are stated at the lower of cost, on an average cost basis, or net realizable value.

## 5. Solar Energy Systems

Solar energy systems, net consisted of the following (in thousands):

	March 31, 2019	December 31, 2018
System equipment costs	\$ 1,718,400	\$ 1,667,440
Initial direct costs related to solar energy systems	—	435,084
	1,718,400	2,102,524
Less: Accumulated depreciation	(162,004)	(195,890)
	1,556,396	1,906,634
Solar energy system inventory	34,492	32,240
Solar energy systems, net	<u>\$ 1,590,888</u>	<u>\$ 1,938,874</u>

Solar energy system inventory represents the solar components and materials used in the installation of solar energy systems prior to being installed on customers' roofs. As such, no depreciation is recorded related to this line item. The Company recorded depreciation expense related to solar energy systems of \$13.1 million and \$15.4 million for the three months ended March 31, 2019 and 2018.

## 6. Property and Equipment

Property and equipment, net consisted of the following (in thousands):

	Estimated Useful Lives	March 31, 2019	December 31, 2018
Leasehold improvements	1-12 years	\$ 10,576	\$ 10,560
Furniture and computer and other equipment	3 years	4,030	3,816
Vehicles acquired under finance leases	3-5 years	1,975	6,907
		16,581	21,283
Less: Accumulated depreciation and amortization		(6,401)	(10,553)
Property and equipment, net		<u>\$ 10,180</u>	<u>\$ 10,730</u>

The Company recorded depreciation and amortization expense related to property and equipment of \$0.1 million and \$1.7 million for the three months ended March 31, 2019 and 2018.

Effective January 1, 2019, the Company adopted Topic 842. As part of the adoption, the Company reassessed all contracts existing at the adoption date. The Company determined that a number of vehicle leases that were previously classified as capital leases under ASC 840 were no longer classified as finance leases under Topic 842. This resulted in a reduction to the gross asset and accumulated depreciation and amortization balances related to vehicles and will result in lower depreciation and amortization expense related to property and equipment compared to prior periods.

## 7. Other Non-Current Assets

Other non-current assets consisted of the following (in thousands):

	March 31, 2019	December 31, 2018
Costs to obtain contracts	\$ 462,495	\$ —
Accumulated amortization of costs to obtain contracts	(50,928)	—
Operating lease right-of-use assets	39,697	—
Sales incentives	9,292	8,588
Other non-current assets	17,457	19,502
Total other non-current assets	<u>\$ 478,013</u>	<u>\$ 28,090</u>

The Company recorded amortization of costs to obtain contracts of \$3.9 million for the three months ended March 31, 2019. Costs to obtain contracts are amortized over the initial terms of customer contracts, which are typically 20 years.

## 8 . Intangible Assets

Net intangible assets are included in other non-current assets, net and consisted of the following (in thousands):

	March 31, 2019	December 31, 2018
Cost:		
Internal-use software	\$ 520	\$ 1,020
Developed technology	522	522
Trademarks/trade names	201	201
Total carrying value	1,243	1,743
Accumulated amortization:		
Internal-use software	(338)	(781)
Developed technology	(343)	(324)
Trademarks/trade names	(105)	(99)
Total accumulated amortization	(786)	(1,204)
Total intangible assets, net	\$ 457	\$ 539

The Company recorded amortization expense of \$0.1 million for each of the three-month periods ended March 31, 2019 and 2018, which is included within general and administrative expense on the condensed consolidated statements of operations.

## 9 . Accrued Compensation

Accrued compensation consisted of the following (in thousands):

	March 31, 2019	December 31, 2018
Accrued payroll	\$ 12,467	\$ 16,352
Accrued commissions	8,654	9,168
Total accrued compensation	\$ 21,121	\$ 25,520

## 10 .Accrued and Other Current Liabilities

Accrued and other current liabilities consisted of the following (in thousands):

	March 31, 2019	December 31, 2018
Accrued unused commitment fees and interest	\$ 15,354	\$ 14,102
Current portion of operating lease liabilities	6,992	—
Accrued professional fees	6,402	6,150
Current portion of lease pass-through financing obligation	5,061	5,038
Accrued workers' compensation	4,459	4,033
Accrued inventory	3,869	4,380
Workmanship accrual	2,648	2,630
Sales, use and property taxes payable	2,618	3,132
Other accrued expenses	2,255	3,395
Total accrued and other current liabilities	\$ 49,658	\$ 42,860

## 11 .Debt Obligations

Debt obligations consisted of the following as of March 31, 2019 (in thousands, except interest rates):

	Principal Borrowings Outstanding	Unamortized Debt Issuance Costs		Net Carrying Value		Unused Borrowing Capacity	Interest Rate	Maturity Date
		Current	Long-term	Current	Long-term			
Solar asset backed notes, Series 2018-1 (1)	\$ 462,826	\$ (73)	\$ (8,988)	\$ 3,657	\$ 450,108	\$ —	5.1%	October 2028
Solar asset backed notes, Series 2018-2 (2)(3)	339,382	(6)	(7,085)	294	331,997	—	5.5	August 2023
2017 Term loan facility	186,784	(168)	(4,524)	6,679	175,413	—	6.0	January 2035
Forward flow loan facility	99,780	(42)	(3,311)	1,206	95,221	30,220	4.9	(4)
Credit agreement	1,279	(2)	(112)	16	1,149	—	6.5	February 2023
Revolving lines of credit (5)								
Aggregation facility	70,000	—	—	—	70,000	305,000	5.7	September 2020
Working capital facility (6)	136,100	—	—	136,100	—	—	5.7	March 2020
<b>Total debt</b>	<b>\$ 1,296,151</b>	<b>\$ (291)</b>	<b>\$ (24,020)</b>	<b>\$ 147,952</b>	<b>\$ 1,123,888</b>	<b>\$ 335,220</b>		

Debt obligations consisted of the following as of December 31, 2018 (in thousands, except interest rates):

	Principal Borrowings Outstanding	Unamortized Debt Issuance Costs		Net Carrying Value		Unused Borrowing Capacity	Interest Rate	Maturity Date
		Current	Long-term	Current	Long-term			
Solar asset backed notes, Series 2018-1 (1)	\$ 462,826	\$ (74)	\$ (9,172)	\$ 3,655	\$ 449,925	\$ —	5.1%	October 2028
Solar asset backed notes, Series 2018-2 (2)(3)	342,833	(6)	(7,388)	294	335,145	—	5.4	August 2023
2017 Term loan facility	188,922	(170)	(4,614)	6,679	177,459	—	6.0	January 2035
Forward flow loan facility	58,425	(43)	(3,365)	1,512	53,505	71,575	5.2	(4)
Credit agreement	1,283	(2)	(118)	15	1,148	—	6.5	February 2023
Revolving lines of credit (5)								
Aggregation facility	50,000	—	—	—	50,000	325,000	5.7	September 2020
Working capital facility (6)	136,100	—	—	—	136,100	—	5.6	March 2020
<b>Total debt</b>	<b>\$ 1,240,389</b>	<b>\$ (295)</b>	<b>\$ (24,657)</b>	<b>\$ 12,155</b>	<b>\$ 1,203,282</b>	<b>\$ 396,575</b>		

- The interest rate disclosed in the table above is a weighted-average rate. The Series 2018-1 Notes are comprised of Class A and Class B Notes. Class A Notes accrue interest at 4.73%. Class B Notes accrue interest at 7.37%.
- The Series 2018-2 Notes are comprised of Class A and Class B Notes. Class B Notes accrue interest at a rate of LIBOR plus 4.75%. Class A Notes accrue interest at a variable spread over LIBOR that results in a weighted average spread for all 2018-2 Notes of 2.95%.
- The interest rate of this facility is partially hedged to an effective interest rate of 6.0% for \$325.2 million of the principal borrowings. See Note 13—Derivative Financial Instruments.
- The maturity date for this facility is 20 years from the end date of the borrowing availability period when all borrowings are aggregated into one term loan, which will be no later than October 31, 2019.
- Revolving lines of credit are not presented net of unamortized debt issuance costs.
- Facility is recourse debt, which refers to debt that is collateralized by the Company's general assets. All of the Company's other debt obligations are non-recourse, which refers to debt that is only collateralized by specified assets or subsidiaries of the Company.

The Company's debt facilities include customary events of default, conditions to borrowing and covenants, including covenants that restrict, subject to certain exceptions, the Company's ability to incur indebtedness, incur liens, make investments, make fundamental changes to their business, dispose of assets, make certain types of restricted payments or enter into certain related party transactions. Additionally, the Company is required to maintain certain financial measurements and interest rate swaps for certain debt facilities. These restrictions do not impact the Company's ability to enter into investment funds, including those that are similar to those entered into previously. The Company's debt facilities are secured by net cash flows from long-term customer contracts. The Company was in compliance with all debt covenants as of March 31, 2019.

### *Solar Asset Backed Notes, Series 2018-1*

In June 2018, a wholly owned subsidiary of the Company issued an aggregate principal amount of \$400.0 million of Solar Asset Backed Notes, Series 2018-1, Class A (the "2018-1 Class A Notes") and an aggregate principal amount of \$66.0 million of Solar Asset Backed Notes, Series 2018-1, Class B (the "2018-1 Class B Notes" and together with the 2018-1 Class A Notes, the "2018-1 Notes"). The 2018-1 Class A Notes accrue interest at a fixed rate of 4.73% and have an anticipated repayment date of October 30, 2028. The 2018-1 Class B Notes accrue interest at a fixed rate of 7.37% and have an anticipated repayment date of October 30, 2028.

In addition to customary events of default and covenants, the 2018-1 Notes are subject to unscheduled prepayment events that generally are customary in nature for solar securitizations of this type, including (1) asset coverage ratios falling below certain levels, (2) a debt service coverage ratio falling below certain levels, (3) the failure to maintain insurance, and (4) the failure to repay the notes in full prior to the anticipated repayment date for such class of notes. The occurrence of an unscheduled prepayment event or an event of default could result in the more rapid repayment of the 2018-1 Notes, and the occurrence of an event of default could, in certain instances, result in the liquidation of the collateral securing the 2018-1 Notes. The 2018-1 Notes are secured by, and payable solely from the cash flow generated by the membership interests in certain indirectly owned subsidiaries of the Company, each of which subsidiaries is the managing member of a project company that owns a pool of photovoltaic systems and related Solar Leases and PPAs and ancillary rights and agreements that were originated by a wholly owned subsidiary of the Company. As of March 31, 2019, the Company had \$13.6 million in required reserves outstanding in collateral accounts with the administrative agent, which are included in restricted cash and cash equivalents.

#### ***Solar Asset Backed Notes, Series 2018-2***

In June 2018, a wholly owned subsidiary of the Company issued an aggregate principal amount of \$296.0 million of Solar Asset Backed Notes, Series 2018-2, Class A (the “2018-2 Class A Notes”) and an aggregate principal amount of \$49.0 million of Solar Asset Backed Notes, Series 2018-2, Class B (the “2018-2 Class B Notes”) and together with the 2018-2 Class A Notes, the “2018-2 Notes”). The 2018-2 Class A Notes accrue interest at a variable spread over the London Interbank Offered Rate (“LIBOR”) that is intended to result in a weighted average spread for all 2018-2 Notes of 2.95%. The 2018-2 Class B Notes accrue interest at a spread over LIBOR of 4.75% or, if no 2018-2 Class A Notes are outstanding, 2.95%. The Company entered into an interest rate swap concurrent with the issuance of the 2018-2 Notes that results in an implied all-in interest rate of approximately 5.95%. See Note 13—Derivative Financial Instruments. The 2018-2 Notes have a stated maturity of August 29, 2023.

The 2018-2 Notes have the same events of default, covenants and unscheduled prepayment events as the 2018-1 Notes. In addition, the 2018-2 Notes are subject to unscheduled prepayment events relating to certain change of control events and certain liquidity requirements. As of March 31, 2019, the Company had \$25.1 million in required reserves outstanding in collateral accounts with the administrative agent, which are included in restricted cash and cash equivalents.

#### ***2016 Term Loan Facility***

In June 2018, the Company used proceeds from the issuance of the 2018-1 Notes and 2018-2 Notes to pay off the outstanding balance of \$282.3 million on the credit facility entered into by a wholly owned subsidiary of the Company in August 2016 (the “2016 Term Loan Facility”) and terminated the credit agreement. At termination, the outstanding balance was composed of \$281.8 million of principal and \$0.5 million of accrued interest. The termination of the 2016 Term Loan Facility was accounted for as a debt extinguishment. As such, the remaining \$6.9 million of unamortized debt issuance costs related to the 2016 Term Loan Facility were recognized in interest expense during the year ended December 31, 2018. There was no prepayment fee associated with the termination of the 2016 Term Loan Facility.

#### ***Subordinated HoldCo Facility***

In June 2018, the Company used proceeds from the issuance of the 2018-1 Notes and 2018-2 Notes to pay off the outstanding balance of \$206.4 million on the credit facility entered into by a wholly owned subsidiary of the Company in March 2016 (the “Subordinated HoldCo Facility”) and terminated the financing agreement. At termination, the outstanding balance was composed of \$196.6 million of principal, \$3.9 million of accrued interest, and a prepayment fee of \$5.9 million, which was calculated as 3.0% of the outstanding principal balance. The termination of the Subordinated HoldCo Facility was accounted for as a debt extinguishment. As such, the remaining \$2.9 million of unamortized debt issuance costs related to the Subordinated HoldCo Facility were recognized in interest expense during the year ended December 31, 2018. The prepayment fee of \$5.9 million was also recognized in interest expense during the year ended December 31, 2018.

#### ***2017 Term Loan Facility***

In January 2017, a wholly owned subsidiary of the Company entered into a long-term fixed rate credit agreement (the “2017 Term Loan Facility”). Interest on borrowings accrues at an annual fixed rate equal to 6.0% and is payable in arrears. Certain principal payments are due on a quarterly basis, subject to the occurrence of certain events. As of March 31, 2019, the Company had \$19.7 million in required reserves outstanding in collateral accounts with the administrative agent, which were included in restricted cash and cash equivalents.

### ***Forward Flow Loan Facility***

In August 2018, a subsidiary which is indirectly owned by the Company together with investors, entered into a loan agreement (the “Forward Flow Loan Facility”) pursuant to which the Company may borrow up to an aggregate principal amount of \$130.0 million. The borrower may make multiple borrowings under the Forward Flow Loan Facility during the availability period, which will continue no later than October 31, 2019. After the availability period, all outstanding loans under the Forward Flow Loan Facility will be aggregated into a single term loan with a maturity date 20 years after the date of aggregation. Interest on each loan will accrue at an annual rate equal to the U.S. swap rate for the weighted-average life of such loan, plus an applicable margin equal to the greater of (a) 1.9% plus a spread adjustment based on the risk premium on the borrowing date relative to the market index-based risk premium on the closing date and (b) 1.5%. Scheduled principal payments are due on a quarterly basis, at the end of January, April, July and October of each year. Upon the occurrence of certain events, the Company will be required to make prepayments of the loans, including payment of a make-whole amount in certain circumstances. As of March 31, 2019, the Company had \$4.1 million in required reserves outstanding in collateral accounts with the administrative agent, which were included in restricted cash and cash equivalents.

### ***Credit Agreement***

In February 2016, a wholly owned subsidiary of the Company entered into a fixed rate credit agreement (the “Credit Agreement”). Principal and interest payments under the Credit Agreement are paid quarterly over the term of the loan. Interest accrues on borrowings at a fixed rate of 6.50%.

### ***Aggregation Facility***

In September 2014, a wholly owned subsidiary of the Company entered into an aggregation credit facility (as amended, the “Aggregation Facility”), pursuant to which the Company may borrow up to an aggregate of \$375.0 million and, upon the satisfaction of certain conditions and the approval of the lenders, up to an additional aggregate of \$175.0 million in borrowings. Prepayments are permitted under the Aggregation Facility. Under the Aggregation Facility, interest on borrowings accrues at a floating rate equal to either (1)(a) LIBOR or (b) the greatest of (i) the Federal Funds Rate plus 0.5%, (ii) the administrative agent’s prime rate and (iii) LIBOR plus 1% and (2) a margin that varies between 3.25% during the period during which the Company may incur borrowings and 3.75% after such period. As of March 31, 2019, the Company had \$2.4 million in required reserves outstanding in collateral accounts with the administrative agent, which were included in restricted cash and cash equivalents.

### ***Working Capital Facility***

In March 2015, a wholly owned subsidiary of the Company entered into a revolving credit agreement (the “Working Capital Facility”) pursuant to which the Company may borrow up to an aggregate principal amount of \$150.0 million from certain financial institutions. In addition to the outstanding borrowings as of March 31, 2019, the Company had established letters of credit under the Working Capital Facility for up to \$13.9 million related to insurance contracts. Prepayments are permitted under the Working Capital Facility. Interest accrues on borrowings at a floating rate equal to, depending on the type of borrowing, (1) a rate equal to the Eurodollar Rate for the interest period divided by one minus the Eurodollar Reserve Percentage, plus a margin of 3.25%; or (2) the highest of (a) the Federal Funds Rate plus 0.50%, (b) the Citibank prime rate and (c) the one-month interest period Eurodollar rate plus 1.00%, plus a margin of 2.25%. Interest is payable depending on the type of borrowing at the end of (1) the interest period that the Company may elect as a term, not to exceed three months, (2) quarterly or (3) at maturity of the Working Capital Facility. The Company is required to maintain \$30.0 million in cash and cash equivalents and certain investments as of the last day of each quarter. As of March 31, 2019, the Company was in compliance with such covenants.

## 12. Leases

The Company is the lessee in substantially all of its lease arrangements. The Company did not enter into any leases with related parties during the presented periods. The Company makes significant assumptions and judgments when assessing contracts for lease components, determining lease classifications and calculating right-of-use asset and lease liability values. These assumptions and judgments may include the useful lives and fair values of the leased assets, the implicit rate underlying the Company's leases, the Company's incremental borrowing rate or the Company's intent to exercise or not exercise options available in lease contracts. Lease costs and other information consisted of the following (in thousands, except terms and rates):

	<b>Three Months Ended March 31, 2019</b>
<b>Lease cost</b>	
Finance lease cost:	
Amortization of right-of-use assets	\$ 294
Interest on lease liabilities	26
Operating lease cost	2,770
Short-term lease cost	722
Total lease cost	<u>\$ 3,812</u>
<b>Other information</b>	
Finance leases:	
Operating cash outflows from finance leases	\$ 26
Financing cash outflows from finance leases	\$ 271
Right-of-use assets obtained in exchange for new finance lease liabilities	\$ 1,053
Weighted-average remaining lease term - finance leases (in years)	2.9
Weighted-average discount rate - finance leases	7.8%
Operating leases:	
Operating cash outflows from operating leases	\$ 2,826
Right-of-use assets obtained in exchange for new operating lease liabilities	\$ 6,910
Weighted-average remaining lease term - operating leases (in years)	9.6
Weighted-average discount rate - operating leases	8.0%

### *Finance Leases*

The Company's finance leases relate to fleet vehicles. All of the Company's fleet vehicles are leased pursuant to master lease agreements for a period of three to five years. The master lease agreements allow for the Company to extend fleet vehicle leases on a month-to-month basis. For administrative convenience, the Company will often commit to extension periods of up to one year. As the extensions are not always utilized and are not contractually bound to a specific period of time, these extensions are not included in the initial right-of-use assets and lease liabilities. Instead, these extensions are treated as new leases. The master lease agreements stipulate minimum residual value guarantees that are not typically recognized as part of the Company's right-of-use assets and lease liabilities as these residual value guarantees are not probable of being owed. The rates implicit in the Company's fleet vehicle finance leases are determinable, and the Company uses those rates to calculate the present value of its lease liabilities related to fleet vehicles.

Future minimum lease payments for the Company's finance leases as of March 31, 2019 were as follows (in thousands):

2019	\$ 727
2020	387
2021	336
2022	330
2023	52
Thereafter	—
Total minimum lease payments	<u>1,832</u>
Less: interest	189
Present value of finance lease obligations	<u>1,643</u>
Less: current portion	769
Long-term portion	<u>\$ 874</u>

### Operating Leases

The Company has entered into lease agreements for offices, warehouses and related equipment located in states in which the Company conducts operations. The Company's corporate office lease was amended in February 2019 to extend the term by an additional three years, for a total lease term of 15 years. The corporate office lease includes options to extend the lease term for two additional periods of five years. The Company's warehouse lease agreements range from a term of one to seven years, with five years being the most common lease term. The warehouse lease agreements typically include options to extend the lease term. The lease agreements do not include purchase options. The Company includes lease extension options in the right-of-use asset and lease liability when the Company is reasonably certain it will exercise the options. The Company's equipment lease agreements range from three to five years. The rates implicit in the Company's operating leases are not readily determinable. As such, the Company uses its incremental borrowing rate to calculate the present value of its operating lease liabilities.

For all non-cancellable lease arrangements, there are no bargain renewal options, penalties for failure to renew, or any guarantee by the Company of the lessor's debt or a loan from the Company to the lessor related to the leased property.

Future minimum lease payments under non-cancellable operating leases as of March 31, 2019 were as follows (in thousands):

2019	\$	8,032
2020		9,483
2021		7,281
2022		5,595
2023		4,780
Thereafter		36,680
Total minimum lease payments		71,851
Less: present value impact		23,040
Present value of operating lease obligations		48,811
Less: current portion		6,992
Long-term portion	\$	41,819

### 13 .Derivative Financial Instruments

Derivative financial instruments at fair value consisted of the following (in thousands):

	March 31, 2019	
	Fair Value	Balance Sheet Location
<b>Derivatives designated as hedging instruments:</b>		
Interest rate swaps	\$ 16,222	Other non-current liabilities
<b>Derivatives not designated as hedging instruments:</b>		
Interest rate swaps	\$ 2,529	Other non-current liabilities
Interest rate swaps	\$ 13	Other non-current assets
	December 31, 2018	
	Fair Value	Balance Sheet Location
<b>Derivatives designated as hedging instruments:</b>		
Interest rate swaps	\$ 9,884	Other non-current liabilities
<b>Derivatives not designated as hedging instruments:</b>		
Interest rate swaps	\$ 1,262	Other non-current liabilities
Interest rate swaps	\$ 130	Other non-current assets

The Company is exposed to interest rate risk relating to its outstanding debt facilities that have variable interest rates. In connection with the March 2017 amendment of the Aggregation Facility, the Company is required to maintain interest rate swaps such that at least 75% of the outstanding loan balance of the Aggregation Facility is hedged. The Company is required to meet this threshold within 15 business days after the end of each quarterly period. As of March 31, 2019, the Company had entered into interest rate swaps with an aggregate notional amount of \$40.0 million. The Company entered the required swaps subsequent to period end and is in compliance with the hedging requirement. The interest rate swaps terminate when the Aggregation Facility matures in September 2020. The Company did not designate these interest rate swaps as hedge instruments and accounts for any changes in fair value in other expense (income), net.

In connection with the 2018-2 Notes, the Company entered into interest rate swaps to offset changes in the variable interest rate for a portion of these notes. As of March 31, 2019, the notional amount of these interest rate swaps was \$ 325.2 million. The notional amount of the interest rate swaps decreases through the maturity of the 2018-2 Notes, similar to the Company's estimated semi-annual principal payments on the 2018-2 Notes through August 2023. The interest rate swaps are designated as cash flow hedges, and unrealized gains or losses are recorded in other comprehensive income ("OCI"). The amount of accumulated other comprehensive (loss) income ("AOCI") expected to be reclassified to interest expense within the next 12 months is approximately \$ 1.8 million. The Company will discontinue the hedge accounting designation of these derivatives if interest payments on LIBOR-indexed floating rate loans compared to the payments under the derivatives are no longer highly effective.

The Company records derivatives at fair value. The losses (gains) on derivatives designated as cash flow hedges recognized in OCI, before tax effect, consisted of the following (in thousands):

	<u>Three Months Ended March 31,</u>	
	<u>2019</u>	<u>2018</u>
<b>Derivatives designated as cash flow hedges:</b>		
Interest rate swaps	\$ 6,660	\$ (5,143)

The losses (gains) on derivative financial instruments recognized in the condensed consolidated statements of operations, before tax effect, consisted of the following (in thousands):

	<u>Three Months Ended March 31,</u>			
	<u>2019</u>		<u>2018</u>	
	<u>Interest expense, net</u>	<u>Other expense (income), net</u>	<u>Interest expense, net</u>	<u>Other expense (income), net</u>
<b>Total amounts presented in the income statement line items</b>	\$ 19,127	\$ 1,385	\$ 16,922	\$ (2,261)
<b>Derivatives designated as cash flow hedges:</b>				
Interest rate swaps				
Losses (gains) reclassified from AOCI into income	\$ 322	\$ —	\$ (381)	\$ —
<b>Derivatives not designated as hedging instruments:</b>				
Interest rate swaps				
Losses (gains) recognized in income	—	1,384	—	(2,262)
Total losses (gains)	<u>\$ 322</u>	<u>\$ 1,384</u>	<u>\$ (381)</u>	<u>\$ (2,262)</u>

## 14 .Investment Funds

As of March 31, 2019 and December 31, 2018, the Company had formed investment funds for the purpose of funding the purchase of solar energy systems under long-term customer contracts. The aggregate carrying value of these funds' assets and liabilities (after elimination of intercompany transactions and balances) in the Company's condensed consolidated balance sheets were as follows (in thousands):

	March 31, 2019	December 31, 2018
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 57,660	\$ 62,350
Accounts receivable, net	13,033	6,593
Prepaid expenses and other current assets	1,754	1,289
Total current assets	72,447	70,232
Restricted cash and cash equivalents	4,071	2,443
Solar energy systems, net	1,448,012	1,752,271
Other non-current assets, net	390,711	10,888
Total assets	<u>\$ 1,915,241</u>	<u>\$ 1,835,834</u>
<b>Liabilities</b>		
Current liabilities:		
Distributions payable to non-controlling interests and redeemable non-controlling interests	\$ 6,591	\$ 7,846
Current portion of long-term debt	1,206	1,512
Current portion of deferred revenue	2,411	2,320
Accrued and other current liabilities	5,194	4,860
Total current liabilities	15,402	16,538
Long-term debt, net of current portion	95,221	53,505
Deferred revenue, net of current portion	10,552	9,694
Other non-current liabilities	993	1,023
Total liabilities	<u>\$ 122,168</u>	<u>\$ 80,760</u>

Under the fund agreements, cash distributions of income and other receipts by the funds, net of agreed-upon expenses and estimated expenses, tax benefits and detriments of income and loss, and tax benefits of tax credits, are assigned to the fund investors and the Company's subsidiaries as specified in contractual arrangements. As such, the cash held in investment funds is not readily available to the Company due to the timing of distributions. Certain of these fund arrangements have call and put options to acquire the investor's equity interest as specified in the contractual agreements. Once the investor's equity interest is acquired by the Company, the assets, liabilities and operations of the investment fund become wholly owned and no longer require an assessment of non-controlling interests.

Fund investors for three of the funds are managed indirectly by The Blackstone Group L.P. (the "Sponsor") and are considered related parties. As of March 31, 2019 and December 31, 2018, the cumulative total of contributions into the VIEs by all investors was \$1,649.7 million and \$1,565.3 million. Of these contributions, a cumulative total of \$110.0 million was contributed by related parties in prior periods. A third-party provider has agreed to perform backup maintenance services for all funds, if necessary.

### *Lease Pass-Through Financing Obligation*

During 2015, a wholly owned subsidiary of the Company entered into a lease pass-through fund arrangement under which the Company contributed solar energy systems and the investor contributed cash. The net carrying value of the related solar energy systems was \$45.2 million and \$55.8 million as of March 31, 2019 and December 31, 2018.

The Company accounts for the residual of the large upfront payments, net of amounts allocated to the ITCs, and subsequent periodic payments received from the fund investor as a borrowing by recording the proceeds received as a lease pass-through financing obligation, which will be repaid through customer payments that will be received by the investor. Under this approach, the Company continues to account for the arrangement with the customers in its condensed consolidated financial statements, whether the cash generated from the customer arrangements is received by the Company's wholly owned subsidiary or paid directly to the fund investor. A portion of the amounts received by the fund investor from customer payments is applied to reduce the lease pass-through financing obligation, and the balance is allocated to interest expense. The customer payments are recognized into revenue based on cash receipts during the period as required by GAAP. Interest is calculated on the lease pass-through financing obligation using the effective interest rate method. The effective interest rate is the interest rate that equates the present value of the cash amounts to be received by a fund investor over the master lease term with the present value of the cash amounts paid by the investor to the Company, adjusted for any payments made by the Company. Any additional master lease prepayments by the investor would be recorded as an additional lease pass-through financing obligation, while any refunds of master lease prepayments would reduce the lease pass-through financing obligation.

The lease pass-through financing obligation is nonrecourse. As of March 31, 2019 and December 31, 2018, the Company had recorded financing liabilities of \$5.3 million for each period related to this fund arrangement, which represents the lease pass-through financing obligation recorded in other liabilities.

### ***Guarantees***

With respect to the investment funds, the Company and the fund investors have entered into guaranty agreements under which the Company guarantees the performance of certain financial obligations of its subsidiaries to the investment funds. These guarantees do not result in the Company being required to make payments to the fund investors unless such payments are mandated by the investment fund governing documents and the investment fund fails to make such payment. Each of the Company's investment funds and financing subsidiaries maintains separate books and records from each other and from the Company. The assets of each investment fund are not available to satisfy the debts or obligations of any other investment fund, subsidiary or the Company.

The Company is contractually obligated to make certain VIE investors whole for losses that the investors may suffer in certain limited circumstances resulting from the disallowance or recapture of ITCs. The Company has concluded that the likelihood of a significant recapture event is remote and consequently has not recorded any liability in the condensed consolidated financial statements for any potential recapture exposure. The maximum potential future payments that the Company could have to make under this obligation would depend on the Internal Revenue Service ("IRS") successfully asserting upon audit that the fair market values of the solar energy systems sold or transferred to the funds as determined by the Company exceeded the allowable basis for the systems for purposes of claiming ITCs. The fair market values of the solar energy systems and related ITCs are determined and the ITCs are allocated to the fund investors in accordance with the funds' governing agreements. Due to uncertainties associated with estimating the timing and amounts of distributions, the likelihood of an event that may trigger repayment, forfeiture or recapture of ITCs to such investors, and the fact that the Company cannot determine how the IRS will evaluate system values used in claiming ITCs, the Company cannot determine the potential maximum future payments that are required under these guarantees. As of March 31, 2019, the Company has not made any payments under these guarantees. However, several recent investment funds, the 2018-1 Notes and the 2018-2 Notes have required the Company to prepay insurance premiums to cover the risk of ITC recapture. The Company amortizes this prepaid insurance expense over the ITC recapture period. The Company had prepaid insurance balances of \$7.9 million and \$8.3 million as of March 31, 2019 and December 31, 2018.

From time to time, the Company incurs fees for non-performance, which non-performance may include, but is not limited to, delays in the installation process and interconnection to the power grid of solar energy systems and other factors. Based on the terms of the investment fund agreements, the Company will either reimburse a portion of the fund investor's capital or pay the fund investor a non-performance fee. No distributions were paid to reimburse fund investors during the three months ended March 31, 2019. As of March 31, 2019, no accrual for additional distributions was required.

As a result of the guaranty arrangements in certain funds, the Company was required to hold a minimum cash balance of \$10.0 million as of March 31, 2019 and December 31, 2018, which is classified as restricted cash and cash equivalents.

## 15. Redeemable Non-Controlling Interests and Equity

### *Common Stock*

The Company had shares of common stock reserved for issuance as follows (in thousands):

	March 31, 2019	December 31, 2018
Shares available for grant under equity incentive plans	15,346	13,323
Restricted stock units issued and outstanding	6,809	6,172
Stock options issued and outstanding	5,041	3,394
Long-term incentive plan	2,706	2,706
Total	<u>29,902</u>	<u>25,595</u>

### *Redeemable Non-Controlling Interests and Non-Controlling Interests*

Seven of the investment funds include a right for the non-controlling interest holder to require the Company's wholly owned subsidiary to purchase all of its membership interests in the fund (each, a "Put Option"). The purchase price for the fund investor's interest in the seven investment funds under the Put Options is the greater of fair market value at the time the option is exercised and a specified amount, ranging from \$2.1 million to \$4.1 million. The Put Options for these seven investment funds are exercisable beginning on the date that specified conditions are met for each respective fund. The first of the Put Options are expected to become exercisable beginning in the second quarter of 2021.

Because the Put Options represent redemption features that are not solely within the control of the Company, the non-controlling interests in these investment funds are presented outside of permanent equity. Redeemable non-controlling interests are recorded using the greater of their carrying value at each reporting date (which is impacted by attribution under the hypothetical liquidation at book value ("HLBV") method) or their estimated redemption value in each reporting period.

In all investment funds except one, the Company's wholly owned subsidiary has the right to require the non-controlling interest holder to sell all of its membership units to the Company's wholly owned subsidiary (each, a "Call Option"). The purchase price for the fund investors' interests under the Call Options varies by fund, but is generally the greater of a specified amount, which ranges from approximately \$1.2 million to \$7.0 million, the fair market value of such interest at the time the option is exercised, or an amount that causes the fund investor to achieve a specified return on investment. The Call Options are exercisable beginning on the date that specified conditions are met for each respective fund. The first of the Call Options are expected to become exercisable beginning in the third quarter of 2020.

## 16. Equity Compensation Plans

### *Equity Incentive Plans*

#### *2014 Equity Incentive Plan*

The Company currently grants equity awards through its 2014 Equity Incentive Plan (the "2014 Plan"). Under the 2014 Plan, the Company may grant stock options, restricted stock, restricted stock units ("RSUs"), stock appreciation rights, performance stock units, performance shares and performance awards to its employees, directors and consultants, and its parent and subsidiary corporations' employees and consultants.

As of March 31, 2019, a total of 15.3 million shares of common stock were available to grant under the 2014 Plan, subject to adjustment in the case of certain events. The number of shares available to grant under the 2014 Plan is subject to an annual increase on the first day of each year. In accordance with the annual increase, an additional 4.8 million shares became available to grant in January 2019 under the 2014 Plan.

## Stock Options

### Stock Option Activity

Stock option activity for the three months ended March 31, 2019 was as follows (in thousands, except term and per share amounts):

	Shares Underlying Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding—December 31, 2018	3,394	\$ 2.77		\$ 4,689
Granted	1,657	4.64		
Exercised	(10)	3.69		
Cancelled	—	—		
Outstanding—March 31, 2019	5,041	\$ 3.38	7.9	\$ 8,889
Options vested and exercisable—March 31, 2019	1,815	\$ 2.42	6.0	\$ 5,226

## RSUs

RSU activity for the three months ended March 31, 2019 was as follows (awards in thousands):

	Number of Awards	Weighted- Average Grant Date Fair Value
Outstanding at December 31, 2018	6,172	\$ 3.84
Granted	1,206	4.62
Vested	(487)	3.85
Forfeited	(82)	3.72
Outstanding at March 31, 2019	6,809	\$ 3.98

## Stock-Based Compensation Expense

Stock-based compensation was included in operating expenses as follows (in thousands):

	Three Months Ended March 31,	
	2019	2018
Cost of revenue	\$ 332	\$ 274
Sales and marketing	735	831
General and administrative	2,584	1,820
Research and development	28	44
Total stock-based compensation	\$ 3,679	\$ 2,969

Unrecognized stock-based compensation expense for RSUs and stock options as of March 31, 2019 was as follows (in thousands, except years):

	Unrecognized Stock-Based Compensation Expense	Weighted- Average Period of Recognition (in years)
RSUs	\$ 17,646	1.8
Stock options	6,162	2.3
Total unrecognized stock-based compensation expense	\$ 23,808	

## **17 .Income Taxes**

The income tax expense for the three months ended March 31, 2019 and 2018 was calculated on a discrete basis resulting in a consolidated quarterly effective income tax rate of (44.5)% and (43.6)%. The variations between the consolidated effective income tax rate and the U.S. federal statutory rate for the three months ended March 31, 2019 and 2018 were primarily attributable to the tax gains recognized on the sale of solar energy systems to investment funds and non-controlling interests and redeemable non-controlling interests.

The Company sells solar energy systems to its investment funds for income tax purposes. As the investment funds are consolidated by the Company, the gain on the sale of the solar energy systems is eliminated in the condensed consolidated financial statements. However, this gain is recognized for tax reporting purposes. The Company accounts for the income tax consequences of these intra-entity transfers as a component of income tax expense during the period in which the transfers occur.

## **18 .Related Party Transactions**

The Company's condensed consolidated statements of operations included related party transactions of \$0.8 million and \$0.7 million within sales and marketing for the three months ended March 31, 2019 and 2018.

### ***Vivint Services***

The Company has negotiated and entered into a number of agreements with its sister company, Vivint, Inc. ("Vivint"). In August 2017, the Company entered into a sales dealer agreement with Vivint, pursuant to which each company will act as a non-exclusive dealer for the other party to market, promote and sell each other's products. The agreement has an initial term of two years and replaces substantially all of the activities being undertaken under the parties' former marketing and customer relations agreement. The Company and Vivint also agreed to extend the term of the non-solicitation provisions under an existing non-competition agreement to match the term of the sales dealer agreement.

The Company incurred fees under agreements with Vivint of \$2.4 million and \$1.0 million for the three months ended March 31, 2019 and 2018. These amounts reflect the level of services provided by Vivint on behalf of the Company.

Payables to Vivint recorded in accounts payable were \$0.1 million and \$0.2 million as of March 31, 2019 and December 31, 2018. These payables include amounts due to Vivint related primarily to the sales dealer agreement.

### ***Advances Receivable — Related Party***

Net amounts due from direct-sales personnel were \$4.0 million and \$5.2 million as of March 31, 2019 and December 31, 2018. The Company provided a reserve of \$1.0 million and \$0.9 million as of March 31, 2019 and December 31, 2018 related to advances to direct-sales personnel who have terminated their employment agreement with the Company.

### ***Investment Funds***

Fund investors for three of the investment funds are indirectly managed by the Sponsor and accordingly are considered related parties. The Company accrued equity distributions to these entities of \$1.1 million and \$1.5 million as of March 31, 2019 and December 31, 2018, included in distributions payable to non-controlling and redeemable non-controlling interests. See Note 14—Investment Funds.

## **19 .Commitments and Contingencies**

### ***Non-Cancellable Operating Leases***

See Note 12—Leases for details regarding the Company's lease arrangements.

### ***Letters of Credit***

As of March 31, 2019, the Company had established letters of credit under the Working Capital Facility for up to \$13.9 million related to insurance contracts. See Note 11—Debt Obligations.

### ***Indemnification Obligations***

From time to time, the Company enters into contracts that contingently require it to indemnify parties against claims. These contracts primarily relate to provisions in the Company's services agreements with related parties that may require the Company to indemnify the related parties against services rendered; and certain agreements with the Company's officers and directors under which the Company may be required to indemnify such persons for liabilities. In addition, under the terms of the agreements related to the Company's investment funds and other material contracts, the Company may also be required to indemnify fund investors and other third parties for liabilities. For further information see Note 14—Investment Funds.

### ***Residual Commission Payments***

The Company pays a portion of sales commissions to its sales representatives on a deferred basis. The amount deferred is based on the value of the system sold by the sales representative and payment is based on the sales representative remaining employed by the Company. As this amount is earned over time, it is not considered an incremental cost of obtaining the contract due to the requirement that the sales representative remain in the Company's service. As a result, the amount that is earned over time is expensed by the Company over the deferral period. As of March 31, 2019, the total estimated obligation that is currently not recorded in the Company's condensed consolidated financial statements, but that will be earned and expensed over the deferral period was \$16.2 million.

### ***Legal Proceedings***

In March 2016, the Company filed suit in the Court of Chancery State of Delaware against SunEdison and SEV Merger Sub Inc. alleging that SunEdison willfully breached its obligations under the Merger Agreement pursuant to which the Company was to be acquired and breached its implied covenant of good faith and fair dealing. In April 2016, SunEdison filed for Chapter 11 bankruptcy, which stayed prosecution of the Company's litigation in the Delaware court. In September 2016, the Company submitted a proof of claim in the bankruptcy case for an unsecured claim in the initial amount of \$1.0 billion, which was subject to dispute, for damages for breach of the Merger Agreement. In April 2018, the Company reached a settlement with the litigation trustee in the bankruptcy case under which the Company's claim will be allowed in the amount of \$590.0 million. This settlement resolves both the lawsuit in the Delaware Chancery Court and the dispute about the amount of the Company's unsecured creditor claim in the bankruptcy. In April 2018, the Company received an initial distribution of \$2.1 million and expects to receive further distributions as assets are distributed to unsecured creditors under the court-approved plan of reorganization in the SunEdison bankruptcy case. While the exact amount to be distributed for this claim is unknown at this time, the payout is expected to be a small fraction of the \$590.0 million claim.

In February 2018, two former employees, on behalf of themselves and a purported class, named the Company in a putative class action alleging that the Company misclassified those employees and violated other wage and hour laws. The complaint seeks unspecified damages and statutory penalties for the alleged violations. The Company disputes the allegations and has retained counsel to defend it in the litigation. If an unfavorable outcome were to occur in this case, it is possible that the impact could be material to the Company's results of operations in the period or periods in which any such outcome becomes probable and estimable.

In March 2018, the New Mexico Attorney General's office filed an action against the Company and several of its officers alleging violation of state consumer protection statutes and other claims. The Company disputes the allegations in the lawsuit and intends to defend itself in the action. The Company is unable to estimate a range of loss, if any, were there to be an adverse final decision. If an unfavorable outcome were to occur in this case, it is possible that the impact could be material to the Company's results of operations in the period(s) in which any such outcome becomes probable and estimable.

In July 2018, an individual filed a putative class action lawsuit in the U.S. District Court for the District of Columbia, purportedly on behalf of himself and other persons who received certain telephone calls. The lawsuit alleges that the Company violated the Telephone Consumer Protection Act and some of its implementing regulations. The complaint seeks statutory penalties for each alleged violation. The Company disputes the allegations in the complaint, has retained counsel and intends to vigorously defend itself in the litigation. The Company is unable to estimate the amount or range of potential loss, if any, at this time.

In October 2018, a former employee filed a representative action pursuant to California's Private Attorneys General Act alleging that the Company violated California labor and employment laws by, among other things, failing to provide its employees with rest and meal breaks. The Company disputes the allegations in the complaint and has retained counsel to represent it in the litigation. The Company is unable to estimate a range of loss, if any, at this time. If an unfavorable outcome were to occur in the case, it is possible that the impact could be material to the Company's results of operations in the period(s) in which any such outcome becomes probable and estimable.

In October 2018, a former sales representative filed a representative action pursuant to California's Private Attorneys General Act alleging that the Company violated California labor and employment laws by, among other things, failing to properly compensate its direct sellers and reimburse them for business expenses. The Company disputes the allegations in the complaint. The Company is unable to estimate a range of loss, if any, at this time. If an unfavorable outcome were to occur in the case, it is possible that the impact could be material to the Company's results of operations in the period(s) in which any such outcome becomes probable and estimable.

In addition to the matters discussed above, in the normal course of business, the Company has from time to time been named as a party to various legal claims, actions and complaints. While the outcome of these matters cannot be predicted with certainty, the Company does not currently believe that the outcome of any of these claims will have a material adverse effect, individually or in the aggregate, on its consolidated financial position, results of operations or cash flows.

The Company accrues for losses that are probable and can be reasonably estimated. The Company evaluates the adequacy of its legal reserves based on its assessment of many factors, including interpretations of the law and assumptions about the future outcome of each case based on available information.

## 20 .Basic and Diluted Net Loss Per Share

The following table sets forth the computation of the Company's basic and diluted net loss attributable per share to common stockholders for three months ended March 31, 2019 and 2018 (in thousands, except per share amounts):

	Three Months Ended March 31,	
	2019	2018
<b>Numerator:</b>		
Net loss attributable to common stockholders	\$ (26,242)	\$ (12,976)
<b>Denominator:</b>		
Shares used in computing net loss attributable per share to common stockholders, basic	120,307	115,155
Weighted-average effect of potentially dilutive shares to purchase common stock	—	—
Shares used in computing net loss attributable per share to common stockholders, diluted	120,307	115,155
<b>Net loss per share attributable to common stockholders:</b>		
Basic and diluted	\$ (0.22)	\$ (0.11)

For the three months ended March 31, 2019 and 2018, the Company incurred net losses attributable to common stockholders. As such, the potentially dilutive shares were anti-dilutive and were not considered in the weighted-average number of common shares outstanding for either period.

## Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

### Forward-Looking Statements

This section should be read in conjunction with our unaudited condensed consolidated financial statements and related notes included in Part 1, Item 1 of this report. This discussion contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are identified by words such as “believe,” “anticipate,” “expect,” “intend,” “plan,” “will,” “may,” “seek” and other similar expressions. You should read these statements carefully because they discuss future expectations, contain projections of future results of operations or financial condition or state other “forward-looking” information. These statements relate to our future plans, objectives, expectations, intentions and financial performance and the assumptions that underlie these statements.

These forward-looking statements include, but are not limited to:

- federal, state and local regulations and policies governing the electric utility industry;
- the regulatory regime for our offerings and for third-party owned solar energy systems;
- technical limitations imposed by operators of the power grid;
- the continuation of rebates, tax credits and incentives, including changes to the rates of the U.S. federal investment tax credit, or ITC, beginning in 2020;
- the price of utility-generated electricity and electricity from other sources;
- our ability to finance the installation of solar energy systems;
- our ability to efficiently install and interconnect solar energy systems to the power grid;
- our ability to manage growth, product offering mix and costs;
- our ability to further penetrate existing markets and expand into new markets;
- our ability to develop new product offerings and distribution channels;
- our relationship with our sister company Vivint, Inc., or Vivint, and The Blackstone Group L.P., our Sponsor;
- our ability to manage our supply chain;
- the cost of equipment and the residual value of solar panels after the expiration of our customer contracts;
- the course and outcome of litigation and other disputes; and
- our ability to maintain our brand and protect our intellectual property.

In combination with the risk factors we have identified, we cannot assure you that the forward-looking statements in this report will prove to be accurate. Further, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all, or as predictions of future events. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

### Overview

We offer distributed solar energy — electricity generated by a solar energy system installed at or near customers’ locations — to residential customers primarily through a customer-focused and neighborhood-driven direct-to-home sales model. We believe we are disrupting the traditional electricity market by satisfying customers’ demand for increased energy independence and less expensive, more socially responsible electricity generation. As a result, we primarily compete with traditional utilities in the markets we serve, and our strategy is to price the energy we sell below prevailing retail electricity rates. The price our customers pay to buy energy from us varies depending on the state where the customer is located, the impact of the local traditional utility, customer price sensitivity, the availability of incentives and rebates, the need to offer a compelling financial benefit and the price other solar energy companies charge in the region. We also compete with distributed solar energy system providers for solar energy system sales on the basis of price, service and availability of financing options.

Our primary product offering includes the following:

- *Power Purchase Agreements.* Under power purchase agreements, or PPAs, we charge customers a fee per kilowatt hour based on the electricity production of the solar energy system, which is billed monthly. PPAs typically have a term of 20 years and are subject to an annual price escalator of 2.9%. Over the term of the PPA, we operate the system and agree to maintain it in good condition. Customers who buy energy from us under PPAs are covered by our workmanship warranty equal to the length of the term of these agreements.
- *Legal-form Leases.* Under legal-form leases, or Solar Leases, we charge customers a fixed monthly payment to lease the solar energy system, which is based on a calculation that accounts for expected solar energy generation. Solar Leases typically have a term of 20 years and are typically subject to an annual price escalator of 2.9%, though some markets offer Solar Leases with no annual price escalator. We provide our Solar Lease customers a performance guarantee, under which we agree to refund certain payments to the customer if the solar energy system does not meet the guaranteed production level in the prior 12-month period. Over the term of the Solar Lease, we operate the system and agree to maintain it in good condition, and in some markets we offer to install a battery storage system along with the solar energy system. Customers who lease equipment from us under Solar Leases are covered by our workmanship warranty equal to the length of the term of these agreements.
- *Solar Energy System Sales.* Under solar energy system sales, or System Sales, we offer our customers the option to purchase solar energy systems for cash or through third-party financing. The price for these contracts is determined as a function of the respective market rate and the size of the solar energy system to be installed. Customers can additionally contract with us for certain structural upgrades, smart home products, battery storage systems, electric vehicle charging stations and other accessories in connection with the installation of a solar energy system based on the market where they are located. We believe System Sales are advantageous to us as they provide immediate access to cash.

Of the 45.6 megawatts installed in the three months ended March 31, 2019, approximately 69% were installed under PPAs, 16% were installed under System Sales and 15% were installed under Solar Leases. We will continue to maximize the value of the solar energy systems we install as well as continue to evaluate pricing to optimize our use of capital based on market conditions and utility rates.

Our ability to offer long-term customer contracts depends in part on our ability to finance the installation of the solar energy systems by co-investing or entering into lease arrangements with fund investors who value the resulting customer receivables and ITCs, accelerated tax depreciation and other incentives related to the solar energy systems primarily through structured investments known as “tax equity.” Tax equity investments are generally structured as non-recourse project financings known as investment funds. In the context of the distributed solar energy market, tax equity investors make an upfront advance payment to a sponsor through an investment fund in exchange for a share of the tax attributes and cash flows emanating from an underlying portfolio of solar energy systems. In these investment funds, the U.S. federal tax attributes offset taxes that otherwise would have been payable on the investors’ other operations. The terms and conditions of each investment fund vary significantly by investor and by fund. We continue to negotiate with financial investors to create additional investment funds.

In general, our investment funds have adopted the partnership or inverted lease structures. Under partnership structures, we and our fund investors contribute cash into a partnership company. The partnership uses this cash to acquire solar energy systems developed by us and sells energy from such systems to customers or directly leases the solar energy systems to customers. Under our existing inverted lease structures, we and the fund investor set up a multi-tiered investment vehicle, comprised of two partnership entities, that facilitates the pass through of the tax benefits to the fund investors. In this structure, we contribute solar energy systems to a lessor partnership entity in exchange for interests in the lessor partnership and the fund investors contribute cash to a lessee partnership in exchange for interests in the lessee partnership which in turn makes an investment in the lessor partnership entity in exchange for interests in the lessor partnership. The lessor partnership distributes the cash contributions received from the lessee partnership to our wholly owned subsidiary that contributed the projects to the lessor partnership. The lessor partnership leases the contributed solar energy systems to the lessee partnership under a master lease, and the lessee partnership pays the lessor partnership rent for those systems.

We have determined that we are the primary beneficiary in these partnership and inverted lease structures for accounting purposes. Accordingly, we consolidate the assets and liabilities and operating results of these partnerships in our condensed consolidated financial statements. We recognize the fund investors’ share of the net assets of the investment funds as non-controlling interests and redeemable non-controlling interests in our condensed consolidated balance sheets. These income or loss allocations, reflected on our condensed consolidated statements of operations, may create significant volatility in our reported results of operations, including potentially changing net loss attributable to common stockholders from loss to income, or vice versa, from quarter to quarter.

Substantially all of our solar energy systems installed through the date of this report have been eligible for ITCs. Pursuant to statute, the ITC rate is scheduled to decline for construction purposes beginning in 2020. If such reductions occur as scheduled, our ability to obtain tax equity may be reduced or be available on less advantageous terms. Furthermore, ITCs have historically supported our ability to provide attractive pricing to customers. If the ITCs are reduced as contemplated, demand for our solar energy systems and our operating results could be adversely affected if we are unable to offset the impact of such reductions.

## Key Operating Metrics

We regularly review a number of metrics, including the following key operating metrics, to evaluate our business, measure our performance, identify trends affecting our business, formulate financial projections and make strategic decisions. Some of our key operating metrics are estimates. These estimates are based on our management's beliefs and assumptions and on information currently available to management. Although we believe that we have a reasonable basis for each of these estimates, these estimates are based on a combination of assumptions that may not prove to be accurate over time, particularly given that a number of them involve estimates of cash flows up to 30 years in the future. Underperformance of the solar energy systems, payment defaults by our customers, cancellation of signed contracts, competition from other distributed solar energy companies, development in the distributed solar energy market and the energy market more broadly, technical innovation or other factors described under the section of this report captioned "Risk Factors" could cause our actual results to differ materially from our calculations. Furthermore, while we believe we have calculated these key metrics in a manner consistent with those used by others in our industry, other companies may in fact calculate these metrics differently than we do now or in the future, which would reduce their usefulness as a comparative measure.

- *Solar energy system installations* . Solar energy system installations represents the number of solar energy systems installed on customers' premises. Cumulative solar energy system installations represents the aggregate number of solar energy systems that have been installed on customers' premises. We track the number of solar energy system installations as of the end of a given period as an indicator of our historical growth and as an indicator of our rate of growth from period to period.
- *Megawatts installed* . Megawatts installed represents the aggregate megawatt nameplate capacity of solar energy systems for which panels, inverters, and mounting and racking hardware have been installed on customers' premises in the period. Cumulative megawatts installed represents the aggregate megawatt nameplate capacity of solar energy systems for which panels, inverters, and mounting and racking hardware have been installed on customers' premises.
- *Estimated nominal contracted payments remaining* . Estimated nominal contracted payments remaining equals the sum of the remaining cash payments that our customers are expected to pay over the term of their PPAs or Solar Leases with us for systems installed as of the measurement date. For a PPA, we multiply the contract price per kilowatt-hour by the estimated annual energy output of the associated solar energy system to determine the estimated nominal contracted payments. For a Solar Lease, we include the monthly fees and upfront fee, if any, as set forth in the lease.
- *Estimated gross retained value under energy contracts* . Estimated gross retained value under energy contracts represents the estimated retained value from the solar energy systems during the typical 20-year term of our PPAs and Solar Leases plus the value of contracted SRECs.
- *Estimated gross retained value of renewal* . Estimated gross retained value of renewal represents the estimated retained value associated with an assumed 10-year renewal term following the expiration of the initial PPA or Solar Lease term. To calculate estimated retained value of renewal, we assume all PPAs and Solar Leases are renewed at 90% of the contractual price in effect at the expiration of the initial term.
- *Estimated gross retained value* . Estimated gross retained value represents the net cash flows discounted at 6% that we expect to receive from customers pursuant to PPAs and Solar Leases plus the value of contracted SRECS net of estimated cash distributions to fund investors, debt associated with our forward flow facilities and estimated operating expenses for systems installed as of the measurement date.
- *Estimated gross retained value per watt* . Estimated gross retained value per watt is calculated by dividing the estimated retained value as of the measurement date by the aggregate nameplate capacity of solar energy systems under PPAs and Solar Leases that have been installed as of such date and is subject to the same assumptions and uncertainties as estimated retained value.

	Three Months Ended	
	March 31,	
	2019	2018
Solar energy system installations	6,514	5,813
Megawatts installed	45.6	40.4
	March 31,	December 31,
	2019	2018
Cumulative solar energy system installations	161,112	154,598
Cumulative megawatts installed	1,106.5	1,060.9
Estimated nominal contracted payments remaining (in millions)	\$ 3,795.8	\$ 3,638.1
Estimated gross retained value under energy contracts (in millions)	\$ 1,549.7	\$ 1,517.0
Estimated gross retained value of renewal (in millions)	\$ 501.0	\$ 479.7
Estimated gross retained value (in millions)	\$ 2,050.7	\$ 1,996.7
Estimated gross retained value per watt	\$ 2.04	\$ 2.06

### Seasonality

We experience seasonal fluctuations in our operations. For example, the amount of revenue we recognize in a given period from PPAs is dependent in part on the amount of energy generated by solar energy systems under such contracts. As a result, customer agreements and incentives revenue is impacted by seasonally shorter daylight hours in winter months. In addition, our ability to install solar energy systems is impacted by weather. For example, we have limited ability to install solar energy systems during the winter months in the Northeastern United States and other areas where winter weather is impactful. Such delays can impact the timing of when we can install and begin to generate revenue from solar energy systems. However, the true extent of these fluctuations may have been masked by our historical growth rates and thus may not be readily apparent from our historical operating results and may be difficult to predict. As such, our historical operating results may not be indicative of future performance.

### Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based on our condensed consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States, or GAAP. GAAP requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue, expenses, cash flows and related footnote disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates. Our future condensed consolidated financial statements will be affected to the extent that our actual results materially differ from these estimates.

We believe that the assumptions and estimates associated with ITCs, revenue recognition, solar energy systems, net, the impairment analysis of long-lived assets, stock-based compensation, the provision for income taxes, the valuation of derivative financial instruments, the recognition and measurement of loss contingencies, and non-controlling interests and redeemable non-controlling interests have the greatest potential impact on our condensed consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates.

Effective January 1, 2019, we adopted the following Accounting Standards Updates, or ASUs:

- *ASU 2016-02, Leases (Topic 842)*, or Topic 842, is intended to increase transparency and comparability among organizations by recognizing right-of-use assets and lease liabilities on the condensed consolidated balance sheets and disclosing key information about leasing arrangements. The impact to the accumulated deficit as a result of adopting Topic 842 was a net reduction of approximately \$0.2 million. Additionally, the adoption of this ASU resulted in right-of-use assets of \$34.6 million related to operating leases being recognized in other non-current assets, net on the condensed consolidated balance sheets as of January 1, 2019. Corresponding lease liabilities of \$43.8 million related to operating leases were recognized on the condensed consolidated balance sheets as of January 1, 2019, with the current portion recognized in accrued and other current liabilities and the long-term portion recognized in other non-current liabilities.
- *ASU 2018-15, Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract*, or ASU 2018-15, clarified that entities should capitalize implementation costs incurred in cloud computing arrangements that are service contracts, which we will now record within other non-current assets, net. We adopted this ASU on a prospective basis.

See Note 2—Summary of Significant Accounting Policies for additional details on each of these ASUs.

There have been no other material changes to our critical accounting policies and estimates during the three months ended March 31, 2019 from those disclosed in our annual report on Form 10-K for the year ended December 31, 2018.

## Components of Results of Operations

### Revenue

*Customer Agreements and Incentives.* We recognize revenue for our PPAs based on the actual amount of power generated at rates specified under the contracts. We recognize revenue for our Solar Leases, which include performance guarantees, on a straight-line basis over the lease term.

We apply for and receive SRECs in certain jurisdictions for power generated by solar energy systems we have installed. We generally recognize revenue related to the sale of SRECs upon delivery to the buyer. The market for SRECs is extremely volatile and sellers are often able to obtain better unit pricing by selling a large quantity of SRECs. As a result, we may sell SRECs infrequently, at opportune times and in large quantities and the timing and volume of our SREC sales may lead to fluctuations in our quarterly results.

*Solar Energy System and Product Sales.* Solar energy systems and product sales primarily include revenue from System Sales. Revenue for System Sales is recognized when systems are interconnected to local power grids and granted permission to operate, assuming all other revenue recognition criteria are met. Revenue from System Sales decreased during the three months ended March 31, 2019 compared to the three months ended March 31, 2018. However, we expect revenue from System Sales to increase slightly in 2019 compared to 2018 due primarily to increased focus in specific markets. Revenue related to the sale of photovoltaic installation products is recognized at the time of product shipment to the customer, assuming the remaining revenue recognition criteria have been met. Revenue mix will likely vary on a period-to-period basis as a result of regulatory, competitive and other local market conditions.

The following table sets forth our revenue by major product (in thousands):

	Three Months Ended March 31,	
	2019	2018
Revenue:		
Customer agreements and other incentives	\$ 30,208	\$ 23,123
SREC sales	9,395	7,991
Total customer agreements and incentives	39,603	31,114
System Sales	29,299	36,764
Photovoltaic installation products	469	372
Total solar energy system and product sales	29,768	37,136
Total revenue	\$ 69,371	\$ 68,250

### Operating Expenses

*Cost of Revenue—Customer Agreements and Incentives.* Cost of revenue—customer agreements and incentives includes the depreciation of the cost of solar energy systems under long-term customer contracts, which are depreciated for accounting purposes over 30 years and in 2018 included the amortization of the related initial direct costs, which were being amortized over the term of the long-term customer contracts. It also includes allocated indirect material and labor costs related to the processing; account creation; design; installation; interconnection and servicing of solar energy systems that are not capitalized, such as personnel costs not directly associated to a solar energy system installation; warehouse rent and utilities; and fleet vehicle executory costs. The cost of customer agreements and incentives also includes allocated facilities and information technology costs. The cost of revenue for the sales of SRECs is limited to broker fees which are paid in connection with certain SREC transactions. In 2019, we expect the cost of customer agreements and incentives revenue to increase in absolute dollars compared to 2018.

*Cost of Revenue—Solar Energy System and Product Sales.* Cost of revenue—solar energy system and product sales consists of direct and allocated indirect material and labor costs and overhead costs for System Sales, photovoltaic installation products and structural upgrades and in 2018 included related costs to obtain contracts associated with System Sales. Indirect material and labor costs are ratably allocated to System Sales and include costs related to the processing; account creation; design; installation; interconnection and servicing of solar energy systems, such as personnel costs not directly associated to a solar energy system installation; warehouse rent and utilities; and fleet vehicle executory costs. The cost of solar energy system and product sales also includes allocated facilities and information technology costs. Costs of solar energy system sales are recognized in conjunction with the related revenue upon the solar energy system passing an inspection by the responsible governmental department after completion of system installation and interconnection to the power grid, assuming all other revenue recognition criteria are met. In 2019, we expect the cost of solar energy system and product sales to decrease in absolute dollars compared to 2018, primarily as a result of 2018 including costs to obtain contracts associated with System Sales which, beginning in 2019, are included in sales and marketing as a result of the adoption of Topic 842.

*Sales and Marketing.* Sales and marketing expenses include personnel costs, such as salaries, benefits, bonuses and stock-based compensation for our corporate sales and marketing employees, certain non-capitalizable commission payments and, beginning in 2019, the amortization of capitalized incremental costs to obtain customer contracts. Sales and marketing expenses also include advertising, promotional and other marketing-related expenses; allocated facilities and information technology costs; travel; professional services and costs related to pre-installation sales activities. In 2019, we expect sales and marketing costs to increase in absolute dollars compared to 2018, primarily as a result of a change in accounting related to costs to obtain contracts and amortization of capitalized costs to obtain contracts, which were previously recorded in cost of revenue, and investments into new sales channels. Our investments into new sales channels such as the homebuilder and retail channels are designed to decrease customer acquisition costs over the longer term.

*Research and Development.* Research and development expense is comprised primarily of salaries and benefits and other costs related to the development of photovoltaic installation products and other solar technologies. Research and development costs are charged to expense when incurred. In 2019, we expect research and development costs to remain relatively consistent in absolute dollars compared to 2018.

*General and Administrative.* General and administrative expenses include personnel costs, such as salaries, bonuses and stock-based compensation related to our general and administrative personnel; professional fees related to legal, human resources, accounting and structured finance services; travel; and allocated facilities and information technology costs. In 2019, we expect general and administrative expenses to increase in absolute dollars compared to 2018.

#### ***Non-Operating Expenses***

*Interest Expense.* Interest expense primarily consists of the interest charges associated with our indebtedness including the amortization of debt issuance costs and the interest component of finance lease obligations. In 2019, we expect our interest expense to increase in absolute dollars compared to 2018 as we have incurred additional indebtedness. Additionally, our debt facilities accrue interest at floating rates and increases in those floating rates would result in higher interest expense.

*Other Expense (Income), net.* Other expense (income), net primarily consists of changes in fair value for our interest rate swaps not designated as hedges.

*Income Tax Expense.* All of our business is conducted in the United States, and therefore income tax expense consists of current and deferred income taxes incurred in U.S federal, state and local jurisdictions.

#### ***Net Loss Attributable to Common Stockholders***

We determine the net loss attributable to common stockholders by deducting from net loss the net loss attributable to non-controlling interests and redeemable non-controlling interests, which represents the investment fund investors' allocable share in the results of operations of the investment funds that we consolidate. Generally, gains and losses that are allocated to the fund investors under the hypothetical liquidation at book value, or HLBV, method relate to hypothetical liquidation gains and losses resulting from differences between the net assets of the investment fund and the partners' respective tax capital accounts in the investment fund. As of March 31, 2019, we had one operational investment fund that did not utilize the HLBV method to allocate gains and losses as we own 100% of the equity of that fund and there is no non-controlling interest attributable to a fund investor.

## Results of Operations

The results of operations presented below should be reviewed in conjunction with the condensed consolidated financial statements and related notes included elsewhere in this report.

The following table sets forth selected condensed consolidated statements of operations data for each of the periods indicated:

	Three Months Ended March 31,	
	2019	2018
(In thousands)		
Revenue:		
Customer agreements and incentives	\$ 39,603	\$ 31,114
Solar energy system and product sales	29,768	37,136
Total revenue	69,371	68,250
Cost of revenue:		
Cost of revenue—customer agreements and incentives	40,191	38,687
Cost of revenue—solar energy system and product sales	17,263	26,045
Total cost of revenue	57,454	64,732
Gross profit	11,917	3,518
Operating expenses:		
Sales and marketing	29,634	11,125
Research and development	469	486
General and administrative	23,049	19,987
Total operating expenses	53,152	31,598
Loss from operations	(41,235)	(28,080)
Interest expense, net	19,127	16,922
Other expense (income), net	1,385	(2,261)
Loss before income taxes	(61,747)	(42,741)
Income tax expense	27,487	18,643
Net loss	(89,234)	(61,384)
Net loss attributable to non-controlling interests and redeemable non-controlling interests	(62,992)	(48,408)
Net loss attributable to common stockholders	\$ (26,242)	\$ (12,976)

### Comparison of Three Months Ended March 31, 2019 and 2018

#### Revenue

	Three Months Ended March 31,		\$ Change 2019 from 2018
	2019	2018	
(In thousands)			
Revenue:			
Customer agreements and incentives	\$ 39,603	\$ 31,114	\$ 8,489
Solar energy system and product sales	29,768	37,136	(7,368)
Total revenue	\$ 69,371	\$ 68,250	\$ 1,121

*Customer Agreements and Incentives.* The \$8.5 million increase was due in part to a \$7.0 million increase in customer agreements revenue as the total megawatts of solar energy systems placed in service under these long-term customer contracts increased 20% and a \$1.4 million increase in SREC revenue.

*Solar Energy System and Product Sales.* The \$7.4 million decrease was primarily due to a decrease in solar energy systems placed in service under System Sales compared to the first quarter of 2018, reflecting shifts in product and market mix.

## Cost of Revenue

	Three Months Ended March 31,		\$ Change 2019 from 2018
	2019	2018	
	(In thousands)		
<b>Cost of revenue:</b>			
Cost of revenue—customer agreements and incentives	\$ 40,191	\$ 38,687	\$ 1,504
Cost of revenue—solar energy system and product sales	17,263	26,045	(8,782)
Total cost of revenue	<u>\$ 57,454</u>	<u>\$ 64,732</u>	<u>\$ (7,278)</u>

*Cost of Revenue—Customer Agreements and Incentives* . The \$1.5 million increase was due in part to a \$3.9 million increase related to growth in the post-installation maintenance organization to accommodate the increase in the number of solar energy systems placed in service and other non-capitalized installation expense and a \$1.7 million increase in depreciation of solar energy system equipment costs due to the increase in the number of solar energy systems placed in service. These increases were partially offset by a \$4.0 million decrease in the amortization of initial direct costs resulting from these costs being recorded in this line item during 2018 while similar costs are recorded in sales and marketing expense beginning in 2019 as a result of adopting Topic 842.

*Cost of Revenue—Solar Energy System and Product Sales* . The \$8.8 million decrease is primarily attributable to a \$5.9 million decrease in costs to obtain contracts resulting from these costs being recorded in this line item during 2018 while similar costs are recorded in sales and marketing expense beginning in 2019 as a result of adopting Topic 842. The remainder of the decrease primarily reflected a lower volume of System Sales placed in service compared to the prior year period.

## Operating Expenses

	Three Months Ended March 31,		\$ Change 2019 from 2018
	2019	2018	
	(In thousands)		
<b>Operating expenses:</b>			
Sales and marketing	\$ 29,634	\$ 11,125	\$ 18,509
Research and development	469	486	(17)
General and administrative	23,049	19,987	3,062
Total operating expenses	<u>\$ 53,152</u>	<u>\$ 31,598</u>	<u>\$ 21,554</u>

*Sales and Marketing* . The \$18.5 million increase was primarily due to a net \$9.6 million increase in costs to obtain contracts and amortization of capitalized costs to obtain contracts resulting from similar costs being recorded in cost of revenue during 2018 while these costs are recorded in this line item beginning in 2019 as a result of adopting Topic 842, a \$7.2 million increase in compensation and benefits due in part to an increase in non-capitalized residual commission payments and inside sales headcount, a \$0.8 million increase in marketing and lead generation activities and a \$0.5 million increase in other administrative costs.

*General and Administrative* . The \$3.1 million increase was primarily due to a \$1.4 million increase in professional fees, a \$1.0 million increase in insurance costs and a \$0.8 million increase in stock-based compensation.

## Non-Operating Expenses

	Three Months Ended March 31,		\$ Change 2019 from 2018
	2019	2018	
	(In thousands)		
Interest expense, net	\$ 19,127	\$ 16,922	\$ 2,205
Other expense (income), net	1,385	(2,261)	3,646

*Interest Expense* . Interest expense increased \$2.2 million primarily due to additional borrowings year over year and higher interest rates on our floating-rate debt facilities.

*Other Expense (Income), net* . The \$3.6 million change from other income to other expense was primarily due to changes in the fair value of our derivative financial instruments.

## Income Taxes

	Three Months Ended March 31,		\$ Change 2019 from 2018
	2019	2018	
Income tax expense	\$ 27,487	\$ 18,643	\$ 8,844

The \$8.8 million increase in income tax expense was primarily attributable to an \$8.9 million additional expense as a result of increased tax gains recognized on the sale of solar energy systems to investment funds and \$3.1 million associated with the net tax effect of non-controlling interests and redeemable non-controlling interests. These increases in income tax expense were partially offset by a tax-effected \$3.4 million increased loss before income taxes.

## Net Loss Attributable to Non-Controlling Interests and Redeemable Non-Controlling Interests

	Three Months Ended March 31,		\$ Change 2019 from 2018
	2019	2018	
Net loss attributable to non-controlling interests and redeemable non-controlling interests	\$ (62,992)	\$ (48,408)	\$ (14,584)

Net loss attributable to non-controlling interests and redeemable non-controlling interests was allocated using the HLBV method. Generally, gains and losses that are allocated to the fund investors relate to hypothetical liquidation gains and losses resulting from differences between the net assets of the investment fund and the partners' respective tax capital accounts in the investment fund. Losses allocated to the fund investors are generally derived from the receipt of ITCs and tax depreciation under Internal Revenue Code Section 168. These tax benefits are primarily allocated to the investors and reduce the fund investors' tax capital account. The \$14.6 million increase in net loss attributable to non-controlling interests and redeemable non-controlling interests is primarily due to a higher volume of solar energy systems installed and placed in service under PPA and Solar Lease agreements compared to the same period in 2018.

## Liquidity and Capital Resources

As of March 31, 2019, we had cash and cash equivalents of \$213.5 million, which consisted principally of cash and time deposits with high-credit-quality financial institutions. As discussed in Note 11—Debt Obligations and Note 14—Investment Funds, we do not have full access to a portion of our cash and cash equivalents. We finance our operations primarily from investment fund arrangements that we have formed with fund investors, from borrowings and from cash inflows from operations.

Our principal uses of cash are funding our operations, including the costs of acquisition and installation of solar energy systems, working capital requirements and the satisfaction of our obligations under our debt instruments. Our business model requires substantial outside financing arrangements to grow the business and facilitate the deployment of additional solar energy systems. While there can be no assurances, we anticipate raising additional required capital from new and existing fund investors, additional borrowings, cash from System Sales and other potential financing vehicles.

We may seek to raise financing through the sale of equity, equity-linked securities, additional borrowings or other financing vehicles. Additional equity or equity-linked financing may be dilutive to our stockholders. If we raise funding through additional borrowings, such borrowings would have rights that are senior to holders of our equity securities and could contain covenants that restrict our operations. We believe our cash and cash equivalents, including our investment fund commitments, projected investment fund contributions and our current debt facilities as further described below, in addition to financing that we may obtain from other sources, including our financial sponsors, will be sufficient to meet our anticipated cash needs for at least the next 12 months. However, if we are unable to secure additional financing when needed, or upon desirable terms, we may be unable to finance installation of our customers' systems in a manner consistent with our past performance, our cost of capital could increase, or we may be required to significantly reduce the scope of our operations, any of which would have a material adverse effect on our business, financial condition, results of operations and prospects. In addition, our investment funds and debt instruments impose restrictions on our ability to draw on financing commitments. If we are unable to satisfy such conditions, we may incur penalties for non-performance under certain investment funds, experience installation delays, or be unable to make installations in accordance with our plans or at all. Any of these factors could also impact customer satisfaction, our business, operating results, prospects and financial condition. While we believe additional financing is available and will continue to be available to support our current level of operations, we believe we have the ability and intent to reduce operations to the level of available financial resources for at least the next 12 months, if necessary.

## Sources of Funds

### Investment Fund Commitments

As of April 30, 2019, we had raised 25 investment funds to which investors such as banks and other large financial investors have committed to invest approximately \$1.9 billion. The undrawn committed capital for these funds as of April 30, 2019 is approximately \$121.6 million, which we estimate will fund approximately 51 megawatts of future deployments.

### Debt Instruments

Debt obligations consisted of the following as of March 31, 2019 (in thousands, except interest rates):

	Principal Borrowings Outstanding	Unused Borrowing Capacity	Interest Rate	Maturity Date
Solar asset backed notes, Series 2018-1 (1)	\$ 462,826	\$ —	5.1%	October 2028
Solar asset backed notes, Series 2018-2 (2)(3)	339,382	—	5.5	August 2023
2017 Term loan facility	186,784	—	6.0	January 2035
Forward flow loan facility	99,780	30,220	4.9	(4)
Credit agreement	1,279	—	6.5	February 2023
Revolving lines of credit				
Aggregation facility	70,000	305,000	5.7	September 2020
Working capital facility (5)	136,100	—	5.7	March 2020
<b>Total debt</b>	<b>\$ 1,296,151</b>	<b>\$ 335,220</b>		

- (1) The interest rate disclosed in the table above is a weighted-average rate. The Series 2018-1 Notes are comprised of Class A and Class B Notes. Class A Notes accrue interest at 4.73%. Class B Notes accrue interest at 7.37%.
- (2) The Series 2018-2 Notes are comprised of Class A and Class B Notes. Class B Notes accrue interest at a rate of LIBOR plus 4.75%. Class A Notes accrue interest at a variable spread over LIBOR that results in a weighted average spread for all 2018-2 Notes of 2.95%.
- (3) The interest rate of this facility is partially hedged to an effective interest rate of 6.0% for \$325.2 million of the principal borrowings. See Note 13—Derivative Financial Instruments.
- (4) The maturity date for this facility is 20 years from the end date of the borrowing availability period when all borrowings are aggregated into one term loan, which will be no later than October 31, 2019.
- (5) Facility is recourse debt, which refers to debt that is collateralized by our general assets. All of our other debt obligations are non-recourse, which refers to debt that is only collateralized by specified assets or our subsidiaries.

See Note 11—Debt Obligations for additional details regarding the debt facilities outstanding at March 31, 2019.

### Revenue from Operations

In the three months ended March 31, 2019, we generated \$39.6 million in revenue from customer agreements and incentives, which approximates cash inflow. Cash related to our System Sales is generally received prior to revenue recognition, and we received \$25.0 million related to System Sales for the three months ended March 31, 2019. The cash from our revenue partially offsets the cash used in operations for the period.

### Uses of Funds

Our principal uses of cash are funding our operations, including the costs of acquisition and installation of solar energy systems, satisfaction of our obligations under our debt instruments and other working capital requirements. From time to time, we also reimburse portions of fund investors' capital as a result of delays in the installation process and interconnection to the power grid of solar energy systems and other factors. We expect our capital expenditures to continue to increase as we continue to install additional solar energy systems. We will need to raise financing to support our operations, and such financing may not be available to us on acceptable terms, or at all.

## Historical Cash Flows

The following table summarizes our cash flows for the periods indicated:

	Three Months Ended March 31,	
	2019	2018
(In thousands)		
Net cash (used in) provided by:		
Operating activities	\$ (69,993)	\$ (14,171)
Investing activities	(64,168)	(71,473)
Financing activities	131,749	56,945
Net decrease in cash and cash equivalents, including restricted amounts	<u>\$ (2,412)</u>	<u>\$ (28,699)</u>

### Operating Activities

In the three months ended March 31, 2019, we had a net cash outflow from operations of \$70.0 million. This was primarily due to outflows of \$36.6 million from our net loss excluding noncash and non-operating items and \$33.4 million of outflows from changes in working capital.

### Investing Activities

In the three months ended March 31, 2019, we used \$64.2 million for investing activities primarily due to \$64.5 million in costs associated with the design, acquisition and installation of solar energy systems. These outflows were partially offset by \$0.6 million in proceeds from disposals of property and equipment.

### Financing Activities

In the three months ended March 31, 2019, we generated \$131.7 million from financing activities, of which \$84.4 million represented proceeds from investments by non-controlling interests and redeemable non-controlling interests received by our investment funds and \$61.4 million represented proceeds from long-term debt. These proceeds were partially offset by distributions to non-controlling interests and redeemable non-controlling interests of \$9.0 million and repayments of long-term debt of \$5.6 million.

## Contractual Obligations

Our contractual commitments and obligations as of December 31, 2018 are set forth in the following table. Material changes that have occurred during the three months ended March 31, 2019 are included in the footnotes to the table.

	Payments Due by Period				
	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years	Total
(In thousands)					
Long-term debt (1)	\$ 12,450	\$ 214,084	\$ 375,720	\$ 638,135	\$ 1,240,389
Interest payments related to long-term debt (2)	68,529	117,911	103,594	167,755	457,789
Distributions payable to non-controlling interests and redeemable non-controlling interests (3)	7,846	—	—	—	7,846
Capital lease obligations and interest (4)	2,069	490	32	—	2,591
Operating lease obligations (4)	11,250	23,472	19,493	63,762	117,977
Total	<u>\$ 102,144</u>	<u>\$ 355,957</u>	<u>\$ 498,839</u>	<u>\$ 869,652</u>	<u>\$ 1,826,592</u>

- (1) Does not include additional borrowings and repayments during the three months ended March 31, 2019, which resulted in a net \$55.8 million increase in principal borrowings. These borrowings included the following activity: under the Forward Flow Loan Facility maturing October 2039, we incurred \$41.4 million of principal borrowings; under the Aggregation Facility maturing in September 2020 we incurred \$20.0 million of principal borrowings; under the Solar Asset Backed Notes, Series 2018-2 maturing in August 2023 we reduced principal borrowings by \$3.5 million; and under the 2017 Term Loan maturing January 2035 we reduced principal borrowings by \$2.1 million. For additional information, see Note 11—Debt Obligations.
- (2) Does not include increases in interest payments related to changes in long-term debt during the three months ended March 31, 2019, which for payments due in less than one year increased \$3.7 million, payments due in one to three years increased \$4.4 million, payments due in three to five years increased \$3.7 million and payments due in more than five years increased \$26.7 million.

- (3) During the three months ended March 31, 2019, distributions payable to non-controlling interests and redeemable non-controlling interests decreased by \$1.3 million.
- (4) We adopted Topic 842 effective January 1, 2019. Under Topic 842, leases that were known as capital leases under ASC 840 are now called finance leases. Additionally, as part of the adoption, we reassessed all leases outstanding at the adoption date. The resulting future minimum lease payment schedules for both finance leases and operating leases are contained in Note 12—Leases.

#### **Off-Balance Sheet Arrangements**

We include in our condensed consolidated financial statements all assets and liabilities and results of operations of investment fund arrangements that we have entered into. We do not have any off-balance sheet arrangements.

#### **Recent Accounting Pronouncements**

For a description of recent accounting pronouncements that we are evaluating, see Note 2—Summary of Significant Accounting Policies.

#### **Item 4. Controls and Procedures**

##### **Internal Control Over Financial Reporting**

###### *Evaluation of Disclosure Controls and Procedures*

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2019 pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Based on the evaluation of our disclosure controls and procedures, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of March 31, 2019.

###### *Changes in Internal Control over Financial Reporting*

There were no changes in our internal control over financial reporting during the three months ended March 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II – OTHER INFORMATION

### Item 1. Legal Proceedings

For a list of our current legal proceedings, see Note 19—Commitments and Contingencies.

### Item 1A. Risk Factors

*You should carefully consider the following risk factors, together with all of the other information included in this report, including the section of this report captioned “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and related notes. If any of the following risks occurred, they could materially adversely affect our business, financial condition or operating results. This report also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of factors that are described below and elsewhere in this report.*

#### Risk Related to Our Business

***We need to enter into substantial additional financing arrangements to facilitate new customers’ access to our solar energy systems and provide working capital, and if financing is not available to us on acceptable terms when needed, our ability to continue to grow our business would be materially adversely impacted.***

Our future success depends on our ability to raise capital from third-party investors and commercial sources, such as banks and other lenders, on competitive terms to help finance the deployment of our solar energy systems. We seek to minimize our cost of capital in order to maintain the price competitiveness of our solar energy systems. We rely on investment funds in order to provide solar energy systems with little to no upfront costs to our customers under our PPAs and Solar Leases. We also rely on access to capital, including through indebtedness in the form of debt facilities and asset-backed securities, to cover the costs of our solar energy systems that are sold outright until the systems are paid for by our customers, whether by cash or through third-party financing arrangements. Certain of our financing arrangements are with fund investors who require particular tax and other benefits. The availability of this tax-advantaged financing depends upon many factors, including:

- our ability to compete with other renewable energy companies for the limited number of potential investment fund investors, each of which has limited funds and limited appetite for the tax benefits associated with these financings;
- the state of financial and credit markets;
- changes in the legal or tax risks associated with these financings; and
- non-renewal of certain incentives or decreases in the associated benefits.

Moreover, potential investors seeking such tax-advantaged financing must remain satisfied that the structures we offer qualify for the tax benefits associated with solar energy systems available to these investors, which depends both on the investors’ assessment of tax law and the absence of any unfavorable interpretations of that law. Changes in existing law and interpretations by the Internal Revenue Service, or IRS, and the courts could reduce the willingness of fund investors to invest in funds associated with these solar energy system investments or cause these investors to require a larger allocation of customer payments. We are not certain that this type of financing will continue to be available to us. If we are unable to establish new financing when needed, or upon desirable terms, to enable our customers’ access to our solar energy systems, we may be unable to finance installation of our customers’ systems, our cost of capital could increase or our liquidity could be constrained, any of which would have a material adverse effect on our business, financial condition, results of operations and prospects. As of April 30, 2019, we had raised 25 investment funds to which investors such as banks and other large financial investors have committed to invest approximately \$1.9 billion. The undrawn committed capital for these funds as of April 30, 2019 is approximately \$121.6 million, which we estimate will fund approximately 51 megawatts of future deployments.

The contract terms in certain of our investment fund documents impose conditions on our ability to draw on financing commitments from the fund investors, including if an event occurs that could reasonably be expected to have a material adverse effect on the fund or on us. The terms and conditions of our investment funds can vary and may require us to alter our products, services or product mix. If we do not satisfy such conditions due to events related to our business or a specific investment fund or developments in our industry or otherwise, and as a result we are unable to draw on existing commitments, our inability to draw on such commitments could have a material adverse effect on our business, liquidity, financial condition and prospects. In addition to our inability to draw on the investors’ commitments, we have in the past incurred and may in the future incur financial penalties for non-performance, including delays in the installation process and interconnection to the power grid of solar energy systems and other factors. Based on the terms of the investment fund agreements, we will either reimburse a portion of the fund investor’s capital or pay the fund investor a non-performance fee.

To meet the capital needs of our growing business, we will need to obtain additional financing from new investors and financial institutions and investors and financial institutions who are current investors or with whom we currently have financing arrangements. If any of the investors or financial institutions that currently provide financing decide not to invest in us in the future due to general market conditions, concerns about our business or prospects or any other reason, or decide to invest at levels that are inadequate to support our anticipated needs or materially change the terms under which they are willing to provide future financing, we will need to identify new investors and financial institutions to provide financing and negotiate new financing terms. In addition, our ability to obtain additional financing through the asset-backed securities market or other secured debt markets is subject to our having sufficient assets eligible for securitization as well as our ability to obtain appropriate credit ratings. If we are unable to raise additional capital in a timely manner, our ability to meet our capital needs and fund future growth may be limited.

In the past, we have sometimes been unable to timely establish investment funds in accordance with our plans, due in part to the relatively limited number of investors attracted to such types of funds, competition for such capital and the complexity associated with negotiating the agreements with respect to such funds. Delays in raising financing could cause us to delay expanding in existing markets or entering into new markets and hiring additional personnel. Any future delays in capital raising could similarly cause us to delay deployment of a substantial number of solar energy systems for which we have signed PPAs or Solar Leases with customers. Our future ability to obtain additional financing depends on banks' and other financing sources' continued confidence in our business model and the renewable energy industry as a whole. It could also be impacted by the liquidity needs of such financing sources themselves. We face intense competition from a variety of other companies, technologies and financing structures for such limited investment capital. If we are unable to continue to offer a competitive investment profile, we may lose access to these funds or they may only be available to us on terms that are less favorable than those received by our competitors. For example, if we experience higher customer default rates than we currently experience in our existing investment funds, it could be more difficult or costly to attract future financing. In our experience, there are a relatively small number of investors that generate sufficient profits and possess the requisite financial sophistication to benefit from and have significant demand for the tax benefits that our investment funds provide. Historically, in the distributed solar energy industry, investors have typically been large financial institutions and a few large, profitable corporations. Our ability to raise investment funds is limited by the relatively small number of such investors. Any inability to secure financing could lead us to cancel planned installations, impair our ability to accept new customers or increase our borrowing costs, any of which would have a material adverse effect on our business, financial condition, results of operations and prospects.

***Our business currently depends on the availability of rebates, tax credits and other financial incentives. The expiration, elimination or reduction of these rebates, credits or incentives or our ability to monetize them could adversely impact our business.***

Federal, state and local government and regulatory bodies provide for tariff structures and incentives to various parties including owners, end users, distributors, system integrators and manufacturers of solar energy systems to promote solar energy in various forms, including rebates, tax credits and other financial incentives such as system performance payments, renewable energy certificates associated with renewable energy generation, exclusion of solar energy systems from property tax assessments and net metering. We rely on these programs to finance solar energy system installations, which enables us to lower the price we charge customers for energy from, and to lease or purchase, our solar energy systems, helping to achieve customer acceptance of solar energy with those customers as an alternative to utility-provided power. However, these programs may expire on a particular date, end when the allocated funding or capacity allocations are exhausted or be reduced or terminated. These reductions or terminations often occur without warning. In addition, the financial value of certain incentives decreases over time. For example, the value of SRECs in a market tends to decrease over time as the supply of SREC-producing solar energy systems installed in that market increases. If we overestimate the future value of these programs, it could adversely impact our financial results.

Substantially all of our solar energy systems installed to date have been eligible for ITCs as well as accelerated depreciation benefits. We have relied on, and will continue to rely on, financing structures that monetize a substantial portion of those benefits and provide financing for our solar energy systems. The federal government currently offers a 30% ITC under Section 48(a) of the Internal Revenue Code for the installation of certain solar power facilities; the 30% rate continues until December 31, 2019. By statute, the ITC is scheduled to decrease to 26% of the basis of a solar energy system for systems where construction begins in 2020, 22% for systems where construction begins in 2021 and 10% for systems where construction begins after 2021 or where the solar energy system is placed into service after 2023, and the amounts that fund investors are willing to invest could decrease or we may be required to provide a larger allocation of customer payments to the fund investors as a result of this scheduled decrease. To the extent we have a reduced ability to raise investment funds as a result of this reduction or an inability to continue to monetize such benefits in our financing arrangements, the rate of growth of installations of our residential solar energy systems and our ability to maintain such systems could be negatively impacted. In addition, future changes in existing law and interpretations by the IRS and the courts with respect to certain matters, including but not limited to, treatment of the ITC and our financing arrangements, the taxation of business entities and the deductibility of interest expense could affect the amount that fund investors are willing to invest, which could reduce our access to capital. The ITC has been a significant driver of the financing supporting the adoption of residential solar energy systems in the United States and its scheduled reduction beginning in 2020, unless modified by an intervening change in law, will significantly impact the attractiveness of solar energy to these investors and could potentially harm our business.

In addition, the Tax Cuts and Jobs Act, or TCJA, which was enacted in December 2017, contains several provisions that may significantly impact the attractiveness of tax benefits to our fund in investors. The TCJA reduces the highest marginal corporate tax rate from 35% to 21%, which causes accelerated depreciation to have less value to investors and results in investors having less appetite for ITCs. In addition, the TCJA imposes a new “base erosion and anti-abuse tax”, or BEAT. The BEAT is a minimum tax applied to certain large taxpayers who make deductible payments that erode their U.S. tax base above a minimum threshold. If an investor is subject to BEAT, ITCs may be used to partially, but not fully offset the BEAT, resulting in a decrease of the value of the ITCs. Thus, investors will likely discount their investments to reflect the lower corporate tax rate as well as the BEAT and may be less likely to invest in solar overall, which could potentially harm our business.

Applicable authorities may adjust or decrease incentives from time to time or include provisions for minimum domestic content requirements or other requirements to qualify for these incentives. An inability to finance solar energy systems through tax-advantaged structures, to realize or monetize depreciation benefits, to monetize or otherwise receive the benefit of rebates, tax credits, SRECs or other financial incentives, or to otherwise structure investment funds in ways that are both attractive to investors and allow us to provide desirable pricing to customers could adversely impact our results of operations and ability to compete in our industry by increasing our cost of capital, causing us to increase the prices of our energy and solar energy systems and reducing the size of our addressable market. In addition, this would adversely impact our ability to attract investment partners and to form new investment funds and our ability to offer attractive financing to prospective customers.

***A material reduction in the retail price of traditional utility-generated electricity or electricity from other sources or other reduction in the cost of such electricity would harm our business, financial condition, results of operations and prospects.***

We believe that many of our customers’ interest in solar energy systems is driven by a desire to pay less for their energy costs. However, distributed residential solar energy has yet to achieve broad market adoption for a number of reasons including state regulatory hurdles, utility-imposed interconnection issues for distributed electricity generation systems and unfavorable economics from the customer perspective.

A customer’s interest in a solar energy system may also be affected by the cost of electricity generated from other energy sources, including renewable energy sources. Decreases in the retail prices of electricity from the traditional utilities or from other renewable energy sources would harm our ability to offer competitive pricing and could harm our business. The cost of electricity from traditional utilities could decrease as a result of:

- construction of new power generation plants, including plants utilizing natural gas, nuclear, coal, renewable energy or other generation technologies;
- the construction of additional electric transmission and distribution lines;
- relief of transmission constraints that enable local centers to generate energy less expensively;
- reductions in the price of natural gas or other fuel sources;
- utility rate adjustment and customer class cost reallocation;
- energy conservation technologies and public initiatives to reduce electricity consumption;
- widespread deployment of existing or development of new or lower-cost energy storage technologies that have the ability to reduce a customer’s average cost of electricity by shifting load to off-peak times;
- changes in regulations by federal or state regulatory bodies that lower the cost of generating and transmitting electricity or otherwise reduce regulatory compliance costs for traditional utilities, or otherwise disadvantage residential solar energy providers relative to traditional utilities; and
- development of new energy generation technologies that provide less expensive energy.

A reduction in utility electricity costs would make PPAs or Solar Leases less economically attractive to customers on a monthly basis and would increase the time to breakeven for our System Sales customers. If the cost of energy available from traditional utilities were to decrease due to any of these reasons, or other reasons, we would be at a competitive disadvantage, we may be unable to attract new customers and our growth would be limited. In addition, from time to time we have increased our pricing in certain markets, which may negatively impact our competitiveness.

***Electric utility industry policies and regulations may present technical, regulatory and economic barriers to the purchase and use of solar energy systems that may significantly reduce demand for electricity from our solar energy systems.***

Federal, state and local government regulations and policies concerning the electric utility industry, utility rate structures, interconnection procedures, and internal policies of electric utilities, heavily influence the market for electricity generation products and services. These regulations and policies often relate to electricity pricing and the interconnection of distributed electricity generation systems to the power grid. Policies and regulations that promote renewable energy and customer-sited energy generation have been challenged by traditional utilities and questioned by those in government and others arguing for less governmental spending and involvement in the energy market. In addition, it is unclear what, if any, actions the current presidential administration in the United States, the U.S. Department of Energy, and the Federal Energy Regulatory Commission may take regarding existing regulations and policies that affect the cost competitiveness of nuclear, coal and gas electric generation, and fossil fuel mining and exploration. Changes in such policies and regulations could increase the cost or decrease the benefits of solar energy systems or reduce costs and other limitations on competing forms of generation, and adversely affect the attractiveness of our products and our results of operations, cost of capital and growth prospects.

In the United States, governments and the state public service commissions that determine utility rates continually modify these regulations and policies. These regulations and policies could result in a significant reduction in the potential demand for electricity from our solar energy systems and could deter customers from entering into contracts with us. In addition, in certain of our regions, electricity generated by solar energy systems competes most effectively with the most expensive retail rates for electricity from the power grid, rather than the less expensive average price of electricity. Modifications to the utilities' peak hour pricing policies or rate design, such as movement to a flat rate, would make our current products less competitive with the price of electricity from the power grid. Other regulatory revisions that could impact the competitiveness of our product include moving from a retail rate to a time-of-use compensation mechanism, imposition of fixed demand or grid-service charges, or limitations on whether third-party owned systems are eligible for such programs. It is possible that changes such as these could have the effect of lowering the incentive for residential customers of investor-owned utilities to reduce their purchases of electricity from their utility by supplying more of their own electricity from solar, and thereby reducing demand for our product. A shift in the timing of peak rates for utility-generated electricity to a time of day when solar energy generation is less efficient or nonexistent could make our solar energy system offerings less competitive and reduce demand for our offerings. In addition, since we are required to obtain interconnection permission for each solar energy system from the local utility, changes in a local utility's regulations, policies or interconnection processes have in the past delayed and in the future could delay or prevent the completion of our solar energy systems. This in turn has delayed and, in the future, could delay or prevent us from generating revenues from such solar energy systems or cause us to redeploy solar energy systems, adversely impacting our results of operations.

In addition, any changes to government or internal utility regulations and policies that favor electric utilities or alternative forms of energy over residential rooftop solar energy could reduce our competitiveness and cause a significant reduction in demand for our offerings or increase our costs or the prices we charge our customers. Certain jurisdictions have proposed allowing traditional utilities to assess various fees on customers purchasing energy from solar energy systems or have imposed or proposed new charges or rate structures that would disproportionately impact solar energy system customers who utilize net metering, either of which would increase the cost of energy to those customers and could reduce demand for our solar energy systems. For example, in California, investor owned utilities are allowed to impose a minimum \$10 fixed charge on the monthly bill for residential customers that elect net metering and also impose new fees for interconnection and other non-bypassable charges. Such non-bypassable charges are being authorized by other public utilities commissions outside of California. Additionally, certain utilities in Arizona have approved increased rates and charges for net metering customers, and others have proposed doing away with the state's renewable electricity standard carve-outs for distributed generation. These policy changes may negatively impact our customers and affect demand for our solar energy systems, and similar changes to net metering policies may occur in other states. It is also possible that these or other changes could be imposed on our current customers, as well as future customers. Due to the current and expected continued concentration of our solar energy systems in California, any such changes in this market would be particularly harmful to our reputation, customer relations, business, results of operations and future growth in these areas. We may be similarly adversely affected if our business becomes concentrated in other jurisdictions.

Relatedly, it is possible that the bankruptcy proceedings initiated by Pacific Gas and Electric Company on January 29, 2019 could have an adverse impact on our customers and operations in California. Any such negative impacts (e.g., resulting from new non-bypassable charges, rate changes, restructuring, etc.) could be harmful to our customer relations, business, results of operations and future growth, especially given the concentration of our solar energy systems in California.

Finally, public service commissions may impose requirements on our business associated with our interactions with consumers. The California Public Utilities Commission and the Public Service Commission of the State of New York have each adopted orders requiring changes to certain of our business practices and continue to take actions suggesting the trend will continue. Other public service commissions could follow California and New York's lead and impose requirements associated with consumer protection that could affect how we do business and acquire customers.

***We rely on net metering and related policies to offer competitive pricing to our customers in all of our current markets, and changes to net metering policies may significantly reduce demand for electricity from our solar energy systems.***

Our business benefits significantly from favorable net metering policies. Net metering allows a homeowner to pay his or her local electric utility only for his or her power usage net of production from the solar energy system, transforming the conventional relationship between customers and traditional utilities. Homeowners receive credit for the energy that the solar installation generates in excess of that needed by the home to offset energy usage at times when the solar installation is not generating energy. In states that provide for net metering, the customer typically pays for the net energy used or receives a credit against future bills at the retail rate if more energy is produced by the solar installation than consumed. In some states and utility territories, customers are also reimbursed by the electric utility for net excess generation on a periodic basis.

In recent years, net metering programs have been subject to regulatory scrutiny and legislative proposals in some states, such as Arizona, California, Hawaii, Nevada, New Hampshire, New York, Texas and Utah. Many utilities have proposed and are proposing new and varied revisions to their net metering programs, with such proposals decided by the state public utilities commissions. These revisions include, but are not limited to, capping the numbers of customers that can elect net metering within a utility service territory, imposing new fixed charges for grid service or interconnection, reducing the retail rate value of the net metered electricity generation, and imposing consumer protection requirements on solar companies. For example, in 2016, the California Public Utilities Commission enacted changes requiring customers within the service territory of San Diego Gas and Electric, Pacific Gas and Electric Company, and Southern California Edison Company, to take service on a net metering successor tariff. Under this successor tariff, utilities are allowed to impose reasonable interconnection fees on customers and some additional charges and customers must take service on time-of-use rates. The California Public Utilities Commission is expected to begin considering additional changes to the net metering successor tariff in 2019 and in 2018 referenced its net metering authority in connection with the imposition of new consumer protection measures on the residential solar industry. Further, municipal utilities are generally not subject to the same state laws and public commission oversight as compared to investor owned utilities and may make drastic and abrupt changes. As we continue to expand into areas with municipal utilities, we may be subject to greater risk of regulatory uncertainty.

If and when net metering caps in certain jurisdictions are reached, the value of the credit that customers receive for net metering will be significantly reduced, utility rate structures will be altered, or fees will be imposed on net metering customers, and future customers may be unable to recognize the same level of cost savings associated with net metering that current customers enjoy. The absence of favorable net metering policies or of net metering entirely, or the imposition of new charges that only or disproportionately impact customers that use net metering would significantly limit customer demand for our solar energy systems and the electricity they generate, could negatively affect existing customers and lead to missed payments or defaults, and could adversely impact our business, results of operations and future growth.

***Our business has benefited from the declining cost of equipment, and our financial results may be harmed if the cost of equipment increases in the future.***

During previous years, the declining cost of solar panels and the raw materials necessary to manufacture them has been a key driver in the price we charge for electricity and customer adoption of solar energy systems. Despite recent increases in solar panel prices due to the tariffs imposed in February 2018, industry experts indicate, and we have seen, that solar panel and raw material prices have generally declined. However, it is possible they will not decline at the same rate as they have over the past several years or that they may increase. In addition, while the solar panel market has recently seen an increase in supply, growth in the solar industry and the resulting increase in demand for solar panels and the raw materials necessary to manufacture them may put upward pressure on prices. These resulting prices could slow our growth and cause our financial results to suffer. In addition, in the past we have purchased a substantial majority of the solar panels used in our solar energy systems from manufacturers headquartered in China; however, most of the manufacturing now takes place in other Asian countries, such as Malaysia and Vietnam. Changes in governmental support or regulation in China or the other countries where these products are manufactured could affect our ability to purchase them on competitive terms, and access to specialized technologies could be restricted.

The U.S. government has imposed duties and tariffs on solar cells and could impose additional tariffs on solar cells manufactured outside the United States or implement additional restraints on trade. In 2014 and 2015, the U.S. government imposed certain anti-dumping and countervailing duties on solar cells manufactured in China and Taiwan. In January 2018, the President of the United States announced the imposition of safeguard measures for a period of four years that include (1) a 30% tariff on imports of solar cells not partially or fully assembled into other products and (2) a 30% tariff on imported solar panels. These tariffs are additive to the anti-dumping and countervailing duties imposed in 2014 and 2015. The tariff on imported solar panels will decline 5% each year in the second, third and fourth years. The safeguard measures went into effect in February 2018 and apply to imports from all foreign countries, including Mexico and Canada, except certain developing countries that are members of the World Trade Organization.

In September 2018, the President of the United States announced the imposition of tariffs on \$200 billion of Chinese goods. Inverters imported from China are listed as subject to the new duties. Tariffs of 10% on inverters went into effect on September 24, 2018, and the tariffs were scheduled to rise to 25% on January 1, 2019. In December 2018, the President agreed to suspend further trade action for 90 days, and in February 2019 to further suspend trade action, to continue negotiations and to leave the tariff at the 10% rate for the time being. Our various inverter suppliers are still determining how they will manage these tariffs. We are currently seeing various responses from inverter suppliers to the 10% tariff, ranging from no price increases to passing on the majority of the tariff to the purchaser through price increases. We are unsure how supplier pricing will be affected by the potential implementation of the 25% tariff. Additionally, it remains unclear whether the tariff applies to all components that accompany an inverter, or just to the inverter itself.

These combined tariffs make affected solar cells less competitively priced in the United States, and the impacted manufacturers may choose to limit the amount of solar equipment they sell into the United States. The U.S. government may also take broader actions to protect U.S. based manufacturers against imports of solar cells manufactured outside the United States, such as in Southeast Asia, Japan, Germany and South Korea.

The safeguard measures have increased, and other potential tariffs could further increase, our costs of solar panels and other system components, potentially causing a significant impact on our system costs, business and prospects. If we are required to pay higher prices, accept less favorable terms or purchase solar panels or other system components from alternative, higher-priced sources, or if supply is otherwise constrained, our costs would increase significantly, and it may be less economical for us to serve certain markets, which would adversely affect our operating results and growth prospects.

***Lack of success in System Sales could negatively impact our operating results and cash flows.***

System Sales allow us to expand our product offerings and to enter into additional markets, such as those that prohibit third-party ownership of distributed solar energy systems or that lack a favorable net metering policy. System Sales represented approximately 16% of total megawatts installed in the three months ended March 31, 2019. Industry analysts have indicated that the number of customer-owned solar energy systems has increased significantly relative to third-party ownership in certain markets. Continued increases in the variety and availability of third-party loan financing products to consumers and outright solar energy system purchases could further facilitate this growth. If customer preferences or the residential solar energy market continue to shift toward solar energy system sales, and we are not successful in our efforts, we may lose market share, which could have an adverse effect on our business, operating results and growth prospects. To the extent we are unsuccessful in our efforts to sell solar energy systems or to work with third parties to finance those systems for our customers, our operating cash flows would be negatively affected, and our business and growth prospects would be adversely affected.

***Our business is concentrated in California, putting us at risk of region specific disruptions.***

As of March 31, 2019, approximately 34% of our cumulative megawatts installed were located in California. In addition, we expect future installations to occur in California, which could further concentrate our customer base and operational infrastructure. Accordingly, our business and results of operations are particularly susceptible to adverse economic, regulatory, political, weather and other conditions in California and in other markets that may become similarly concentrated. As mentioned above, any adverse impacts to retail electric customers resulting from Pacific Gas and Electric Company's bankruptcy proceedings could affect a significant portion of our customer base in light of the concentration of our customers in California.

***Technical and regulatory limitations may significantly reduce our ability to sell electricity from our solar energy systems and retain employees in certain markets.***

Technical and regulatory limits may curb our growth in certain key markets, which may also reduce our ability to retain employees in those markets. For example, the Federal Energy Regulatory Commission, in promulgating the first form small generator interconnection procedures, recommended limiting customer-sited intermittent generation resources, such as our solar energy systems, to a certain percentage of peak load on a given electrical feeder circuit. Similar limits have been adopted by many states as a de facto standard and could constrain our ability to market to customers in certain geographic areas where the concentration of solar installations exceeds this limit. Furthermore, in certain areas, we benefit from policies that allow for expedited or simplified procedures related to connecting solar energy systems to the power grid. If such procedures are changed or cease to be available, our ability to sell the electricity generated by solar energy systems we install may be adversely impacted. As adoption of solar distributed generation rises along with the commercial operation of utility scale solar generation in key markets such as California, the amount of solar energy being fed into the power grid will surpass the amount planned for relative to the amount of aggregate demand. Some traditional utilities claim that in less than five years, solar generation resources may reach a level capable of producing an over-generation situation, which may require some solar generation resources to be curtailed to maintain operation of the power grid. The adverse effects of such curtailment without compensation could adversely impact our business, results of operations and future growth.

***We have incurred operating losses before income taxes and may be unable to achieve or sustain profitability in the future.***

We have incurred operating losses before income taxes since our inception. We incurred losses before income taxes of \$61.7 million and \$42.7 million for the three months ended March 31, 2019 and 2018. We expect to continue to incur losses before income taxes from operations as we finance our operations, expand our installation, engineering, administrative, sales and marketing staffs, and implement internal systems and infrastructure to support financing the installation of new solar energy systems. Our ability to achieve profitability depends on a number of factors, including:

- growing our customer base;
- finding investors willing to invest in our investment funds;
- maintaining and further reducing our cost of capital;
- reducing the time between system installation and interconnection to the power grid, which allows us to begin generating revenue;
- reducing the cost of components for our solar energy systems;
- maximizing the benefits of rebates, tax credits, SRECs and other available incentives; and
- reducing our operating costs by optimizing our sales, design and installation processes and supply chain logistics.

Even if we do achieve profitability, we may be unable to sustain or increase our profitability in the future.

***The majority of our business is conducted using one channel, direct-to-home sales.***

Historically, our primary sales channel has been a direct-to-home sales model. We also sell to customers through our inside sales team and have begun to sell through the homebuilder and retail distribution channels. However, we continue to acquire most of our customers through our direct-to-home sales channel. In addition, we have entered into sales dealer agreements with Vivint and others. We compete against companies with greater experience selling solar energy systems to customers through a number of distribution channels in addition to direct-to-home sales, including homebuilders, home improvement stores, large construction companies, electrical and roofing companies, the internet, and through relationships with other third parties. Our less diversified distribution channels may place us at a disadvantage with consumers who prefer to purchase products through these other distribution channels. If customers demonstrate a preference for other distribution channels, we may need to reduce our direct-selling efforts. We are also vulnerable to changes in laws related to direct sales and marketing that could impose additional limitations on unsolicited residential sales calls and may impose additional restrictions such as adjustments to our marketing materials and direct-selling processes, and new training for personnel. If additional laws affecting direct sales and marketing are passed in the markets in which we operate, it would take time to train our sales force to comply with such laws, and we may be exposed to fines or other penalties for violations of such laws. If we fail to compete effectively through our direct-selling efforts or are not successful in developing other sales channels, our financial condition, results of operations and growth prospects could be adversely affected.

***Expansion into new sales channels could be costly and time-consuming. As we enter homebuilder and retail channels, among other new channels, we could be at a disadvantage relative to other companies who have more history in these spaces.***

Historically, our primary sales channel has been the direct-to-home sales model. As we continue to expand into other channels, such as the homebuilder and retail channels, we may incur significant costs including investments into inside sales to support these efforts. In addition, we may not initially or ever be successful in utilizing these new channels. Furthermore, we may not be able to compete successfully with companies with a historical presence in such channels, and we may not realize the anticipated benefits of entering such channels. Entering new channels poses numerous risks, including the following:

- incurrence of significant start-up costs to adapt our current processes or develop new sales processes for use in these channels;
- diversion of our management and employees from our core direct-to-home sales model;
- difficulty adapting our current marketing strategies or developing new marketing strategies to these new channels;
- inability to obtain key partners and the necessary volumes to remain viable in the retail space, both for us and for our retail partners;
- inability to compete successfully with companies with a historical presence in such channels; and
- inability to achieve the financial and strategic goals for these channels.

If we are unable to successfully compete in new channels, our operating results and growth prospects could be adversely affected.

***We are highly dependent on our ability to attract, train and retain an effective sales force.***

The success of our direct-to-home sales efforts depends upon the recruitment, retention and motivation of a large number of sales personnel to compensate for a high turnover rate, which is a common characteristic of a direct-selling business. In order to grow our business, we need to recruit, train and retain sales personnel on a continuing basis. Sales personnel are attracted to direct-selling by competitive earnings opportunities, and direct-sellers typically compete for sales personnel by providing a more competitive earnings opportunity than that offered by the competition. We believe competitors devote substantial effort to determining the effectiveness of such incentives so that they can invest in incentives that are the most cost effective or produce the best return on investment. We have historically compensated our sales personnel on a commission basis, based on the size of the solar energy systems they sell and recently have begun compensating based on system size, contract rate and the expected number of hours the rooftop will be exposed to full sunlight. Some sales personnel may prefer a compensation structure that also includes a salary and equity incentive component. There is significant competition for sales talent in our industry, and from time to time we may need to adjust our compensation model to include such components. These adjustments have caused and are expected to continue to cause our customer acquisition costs to increase, and could otherwise adversely impact our operating results and financial performance.

In addition to our sales compensation model, our ability to recruit, train and retain effective sales personnel could be harmed by additional factors, including:

- any adverse publicity regarding us, our solar energy systems, our distribution channel or our industry;
- lack of interest in, or the technical failure of, our solar energy systems;
- lack of a compelling product or income opportunity that generates interest for potential new sales personnel, or perception that other product or income opportunities are more attractive;
- any negative public perception of our sales personnel and direct-selling businesses in general;
- any regulatory actions or charges against us or others in our industry;
- general economic and business conditions; and
- potential saturation or maturity levels in a given market which could negatively impact our ability to attract and retain sales personnel in such market.

We are subject to significant competition for the recruitment of sales personnel from other direct-selling companies and from other companies that sell solar energy systems in particular. Regional and district managers of our sales personnel are instrumental in recruiting, retaining and motivating our sales personnel. When managers have elected to leave us and join other companies, the sales personnel they supervise have often left with them. We may experience increased attrition in our sales personnel in the future, which may impact our results of operations and growth. The impact of such attrition could be particularly acute in those jurisdictions, such as California, where contractual non-competition agreements for service providers are not enforceable or are subject to significant limitations.

It is therefore continually necessary to innovate and enhance our direct-selling and service model as well as to recruit and retain new sales personnel. If we are unable to do so, our business could be adversely affected.

***We are not currently regulated as an electric utility under applicable law in the jurisdictions in which we operate (other than New York), but we may be subject to regulation as an electric utility in the future.***

Except as described below with respect to New York, we are not regulated as a public utility in any of the markets in which we currently operate. As a result, we are not subject to the various federal, state and local standards, restrictions and regulatory requirements applicable to traditional utilities that operate transmission and distribution systems and that have an obligation to serve electric customers within a specified jurisdiction.

In October 2017, the Public Service Commission of the State of New York entered an order determining that residential rooftop solar energy providers are “electric corporations” (the term for electric utilities under New York state law) and requiring changes that will affect certain aspects of our business. The Public Service Commission expanded its original order of October 2017 in March 2019. The order, which is part of a broader proceeding before the Commission associated with regulating and overseeing distributed energy resource suppliers, is premised on the Commission’s determination that it has the jurisdiction to oversee our business, and businesses like ours, in the same way that it oversees public utilities. Though New York’s Public Service Commission is, to our knowledge, the first state public commission to take the position that residential rooftop solar energy providers are subject to the same regulatory oversight as electric utilities, we understand from SEIA that other public service commissions are following what is happening in New York and may take similar action depending on the outcome. If we were subject to the jurisdiction of public service commissions in the same or a similar way as public utilities, those commissions could take action that could materially affect our business operations.

Any additional federal, state, or local regulations that cause us to be treated as an electric utility, or to otherwise be subject to a similar regulatory regime of commission-approved operating tariffs, rate limitations, and related mandatory provisions, could place significant restrictions on our ability to operate our business and execute our business plan by prohibiting, restricting or otherwise regulating our sale of electricity. If we were subject to the same state or federal regulatory authorities as electric utilities in the United States or if new regulatory bodies were established to oversee our business in the United States, then our operating costs would materially increase.

***Our business depends in part on the regulatory treatment of third-party owned solar energy systems.***

We face regulatory hurdles in some states and jurisdictions, including states and jurisdictions that we intend to enter, where the laws and regulatory policies have not historically embraced competition to the service provided by the incumbent, vertically integrated electric utility. Some of the principal challenges pertain to whether non-customer owned systems qualify for the same levels of rebates or other non-tax incentives available for customer-owned solar energy systems, whether third-party owned systems are eligible at all for these incentives and whether third-party owned systems are eligible for net metering and the associated cost savings. Furthermore, in some states and utility territories third parties are limited in the way that they may deliver solar to their customers. In certain jurisdictions, laws have been interpreted to either prohibit the sale of electricity pursuant to our standard PPA or regulate entities making such sales, and in some cases, such laws have led residential solar energy system providers to use leases in lieu of PPAs. In other states, neither leases nor PPAs are permissible or commercially feasible. Changes in law and reductions in, eliminations of or additional application requirements for, these benefits could reduce demand for our systems, adversely impact our access to capital and could cause us to increase the price we charge our customers for energy.

***If the IRS or the U.S. Treasury Department makes a determination that the fair market value of our solar energy systems is materially lower than what we have reported in our fund tax returns, we may have to pay significant amounts to our investment funds, our fund investors and/or the U.S. government. Such determinations could have a material adverse effect on our business, financial condition and prospects.***

We report in our fund tax returns that we and our fund investors claim the ITC based on the fair market value of our solar energy systems. The IRS continues to audit the fair market value determinations industry-wide. We are not aware of any ongoing audits or results of audits related to our appraisals or fair market value determinations of any of our investment funds. If as part of an examination the IRS were to review the fair market value that we used to establish our basis for claiming ITCs and determine that the ITCs previously claimed should be reduced, we would owe certain of our investment funds or our fund investors an amount equal to 30% of the investor's share of the difference between the fair market value used to establish our basis for claiming ITCs and the adjusted fair market value determined by the IRS, plus any costs and expenses associated with a challenge to that fair market value, plus a gross up to pay for additional taxes. We could also be subject to tax liabilities, including interest and penalties, based on our share of claimed ITCs. To date, we have not been required to make such payments under any of our investment funds.

***Rising interest rates could adversely impact our business.***

Rising interest rates could have an adverse impact on our business by increasing our cost of capital. The majority of our cash flows to date have been from customer contracts that have been partially monetized under various investment fund structures. One of the components of this monetization is the present value of the payment streams from the customers who enter into these contracts. If the rate of return required by the fund investor rises as a result of a rise in interest rates, the present value of the customer payment stream and the total value that we are able to derive from monetizing the payment stream will each be reduced. Interest rates are at relatively low levels. If interest rates rise in the future, our costs of capital could increase.

***Our investment funds contain arrangements that provide for priority distributions to fund investors until they receive their targeted rates of return. In addition, under the terms of certain of our investment funds, we may be required to make payments to the fund investors if certain tax benefits that are allocated to such fund investors are not realized as expected. Our financial condition may be adversely impacted if a fund is required to make these priority distributions for a longer period than anticipated to achieve the fund investors' targeted rates of return or if we are required to make any tax-related payments.***

Our investment funds contain terms that contractually require the investment funds to make priority distributions to the fund investor, to the extent cash is available, until it achieves its targeted rate of return. The amounts of potential future distributions under these arrangements depends on the amounts and timing of receipt of cash flows into the investment fund, almost all of which is generated from customer payments related to solar energy systems that have been previously purchased (or leased, as applicable) by such fund. If such cash flows are lower than expected, the priority distributions to the investor may continue for longer than initially anticipated.

Additionally, certain of our investment funds require that, under certain circumstances, we forego distributions from the fund that we are otherwise contractually entitled to, or make capital contributions to the fund that can be redirected to the fund investor such that it achieves the targeted return. These forgone distributions or capital contributions will generally occur if the fund investor has not achieved its targeted return prior to the target flip date of the investment fund. None of our investment funds have reached their target flip date, and we anticipate that the first target flip date in which a fund investor is required to have achieved its targeted return is July 1, 2020.

Our fund investors also expect returns partially in the form of tax benefits and, to enable such returns, our investment funds contain terms that contractually require us to make payments to the funds that are then used to make payments to the fund investor in certain circumstances so that the fund investor receives value equivalent to the tax benefits it expected to receive when entering into the transaction. The amounts of potential tax payments under these arrangements depend on the tax benefits that accrue to such investors from the funds' activities and, in some cases, may be impacted by changes in tax law.

Due to uncertainties associated with estimating the timing and amounts of these cash distributions and allocations of tax benefits to such investors, we cannot determine the potential maximum future impact on our cash flows or payments that we could have to make under these arrangements. We may agree to similar terms in the future if market conditions require it. Any significant payments that we may be required to make or distributions to us that are reduced or diverted as a result of these arrangements could adversely affect our financial condition.

***We may incur substantially more debt or take other actions that could restrict our ability to pursue our business strategies.***

As of March 31, 2019, we and our subsidiaries had outstanding \$1.3 billion in principal amount of indebtedness, including through debt facilities and asset-backed securities issued by our subsidiaries. As of March 31, 2019, we had up to \$335.2 million of unused borrowing capacity remaining. These debt facilities restrict our ability to dispose of assets, incur indebtedness, incur liens, pay dividends or make other distributions to holders of our capital stock, repurchase our capital stock, make specified investments or engage in transactions with our affiliates. In addition, we do not have full access to the cash and cash equivalents held in our investments funds until distributed per the terms of the arrangements. We and our subsidiaries may incur substantial additional debt in the future and any debt instrument we enter into in the future may contain similar, or more onerous, restrictions. These restrictions could inhibit our ability to pursue our business strategies. Additionally, our ability to make scheduled payments depends on our operating performance, which is subject to economic, financial, competitive and other factors that may be beyond our control. Furthermore, if we default on one of our debt instruments, and such event of default is not cured or waived, the lenders could terminate commitments to lend and cause all amounts outstanding with respect to the debt to be due and payable immediately, which in turn could result in cross acceleration under other debt instruments. Our assets and cash flow may not be sufficient to fully repay borrowings under all of our outstanding debt instruments if some or all of these instruments are accelerated upon a default.

Furthermore, there is no assurance that we will be able to raise additional capital through the asset-backed securities market or other secured or unsecured debt markets or enter into new debt instruments on acceptable terms. If we are unable to satisfy financial covenants and other terms under existing or new instruments or obtain waivers or forbearance from our lenders or if we are unable to obtain refinancing or new financings for our working capital, equipment and other needs on acceptable terms if and when needed, our business would be adversely affected.

***Residential solar energy is an evolving market, which makes it difficult to evaluate our prospects.***

The residential solar energy industry is constantly evolving, which makes it difficult to evaluate our prospects. We cannot be certain if historical growth rates reflect future opportunities or whether growth anticipated by us or industry analysts will be realized. Any future growth of the residential solar energy market and the success of our solar energy systems depend on many factors beyond our control, including recognition and acceptance of the residential solar energy market by consumers, the pricing of alternative sources of energy, a favorable regulatory environment, the continuation of expected tax benefits and other incentives and our ability to provide our solar energy systems cost-effectively. If the markets for residential solar energy do not develop at the rate we expect, our business may be adversely affected.

Additionally, there is limited empirical evidence regarding the effect solar energy systems have on the resale value of customers' houses. Due to the length of our customer contracts, the system deployed on a customer's roof may be outdated prior to the expiration of the term of the customer contract reducing the likelihood of renewal of our contracts at the end of the 20-year term, and possibly increasing the occurrence of defaults. This could have an adverse effect on our business, financial condition, results of operations and cash flow. As a result, we may be unable to accurately forecast our future performance and to invest accordingly.

***If we fail to maintain proper and effective internal controls, our ability to produce accurate and timely financial statements could be impaired, which could harm our operating results, our ability to operate our business and investors' views of us.***

Section 404 of the Sarbanes-Oxley Act requires public companies to conduct an annual review and evaluation of their internal controls. Our failure to maintain the effectiveness of our internal controls in accordance with the requirements of the Sarbanes-Oxley Act could have a material adverse effect on our business. We could lose investor confidence in the accuracy and completeness of our financial reports, which could have an adverse effect on our stock price. In addition, if our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

***We face competition from traditional regulated electric utilities, from less-regulated third party energy service providers, other solar companies and from new renewable energy companies.***

The solar energy and renewable energy industries are both highly competitive and continually evolving as participants strive to distinguish themselves within their markets and compete with large traditional utilities. We believe that our primary competitors are the traditional utilities that supply electricity to our potential customers. Traditional utilities generally have substantially greater financial, technical, operational and other resources than we do. As a result, these competitors may be able to devote more resources to the research, development, promotion and sale of their products or respond more quickly to evolving industry standards and changes in market conditions than we can, including the ability to initiate proceedings before state public utility commissions to reduce the value of net metering. Traditional utilities could also offer other value-added products or services that could help them to compete with us even if the cost of electricity they offer is higher than ours. In addition, a majority of utilities' sources of electricity is non-solar, which may allow utilities to sell electricity more cheaply than electricity generated by our solar energy systems.

We also compete with companies that are not regulated like traditional utilities but that have access to the traditional utility electricity transmission and distribution infrastructure pursuant to state and local pro-competitive and consumer choice policies. These energy service companies are able to offer customers electricity supply-only solutions that are competitive with our solar energy system options on both price and usage of renewable energy technology while avoiding the long-term agreements and physical installations that our current fund-financed business model requires. This may limit our ability to attract new customers, particularly those who wish to avoid long-term contracts or have an aesthetic or other objection to putting solar panels on their roofs.

Additionally, we compete with solar companies with business models that are similar to ours. Some of these competitors have a higher degree of brand name recognition, differing business and pricing strategies, and greater capital resources than we have, as well as extensive knowledge of our target markets. In addition, our System Sales face increasing competition from other national and local solar energy companies who sell solar energy systems and may offer a broader suite of companion products. We believe the solar industry is becoming increasingly commoditized, and if we are unable to offer differentiated products, establish or maintain a consumer brand that resonates with homeowners or compete with the pricing offered by our competitors, our sales and market share position may be adversely affected.

In addition, we compete with solar companies in the downstream value chain of solar energy. For example, we face competition from purely finance driven organizations that acquire customers and then subcontract out the installation of solar energy systems, from installation businesses that seek financing from external parties, from large construction companies and utilities, and from electrical and roofing companies. Some of these competitors specialize in the residential solar energy market, and some may provide energy at lower costs than we do. Additionally, some of our competitors may offer their products through sales channels that we do not access or that they have more fully developed. Many of our competitors also have significant brand name recognition and have extensive knowledge of our target markets. For us to remain competitive, we must distinguish ourselves from our competitors by offering an integrated approach that successfully competes with each level of products and services offered by our competitors at various points in the value chain. If our competitors develop an integrated approach similar to ours including sales, financing, engineering, manufacturing, installation, maintenance and monitoring services, this will reduce our marketplace differentiation.

We also compete with solar companies that offer community solar products and utility companies that provide renewable power purchase programs. Some customers might choose to subscribe to a community solar project or renewable subscriber programs instead of installing a solar energy system on their home, which could affect our sales. Additionally, some utility companies (and some utility-like entities, such as community choice aggregators in California) have generation portfolios that are increasingly renewable in nature. In California, for example, due to recent legislation, utility companies and community choice aggregators in that state are required to have generation portfolios comprised of 60% renewable energy by 2030, and state regulators are planning for utility companies and community choice aggregators to sell 100% greenhouse gas free electricity to retail customers by 2045. As utility companies offer increasingly renewable portfolios to retail customers, those customers might be less inclined to install a solar energy system at their home, which could adversely affect our growth.

As the solar industry grows and evolves, we will also face new competitors who are not currently in the market. Our industry is characterized by low technological barriers to entry, and well-capitalized companies could choose to enter the market and compete with us. Our failure to adapt to changing market conditions and to compete successfully with existing or new competitors will limit our growth and will have a material adverse effect on our business and prospects.

***Developments in alternative technologies or improvements in distributed solar energy generation may materially adversely affect demand for our offerings.***

Significant developments in alternative technologies, such as advances in other forms of distributed solar power generation, storage solutions such as batteries, the widespread use or adoption of fuel cells for residential or commercial properties or improvements in other forms of centralized power production may materially and adversely affect our business and prospects in ways we do not currently anticipate. Any failure by us to adopt new or enhanced technologies or processes, or to react to changes in existing technologies, could materially delay deployment of our solar energy systems, which could result in product obsolescence, the loss of competitiveness of our systems, decreased revenue and a loss of market share to competitors.

***A failure to hire and retain a sufficient number of employees in key functions would constrain our ability to timely complete our customers' projects.***

To support our business, we need to hire, train, deploy, manage and retain a substantial number of skilled installers and electricians in the markets where there is heightened or increasing demand for solar energy products. Competition for qualified personnel in our industry has increased substantially, and we expect it to continue to do so, particularly for skilled electricians and other personnel involved in the installation of solar energy systems. We also compete with the homebuilding and construction industries for skilled labor. As these industries seek to hire additional workers, our cost of labor may increase. Companies with whom we compete to hire installers may offer compensation or incentive plans that certain installers may view as more favorable. We periodically assess the compensation plans and policies for our service providers, including our installers and electricians and, if deemed necessary, may decide to revise those plans and policies. Our installers and electricians may not react well to any such revisions, which in turn could adversely affect retention, motivation and productivity. Additionally, we continually monitor our workforce requirements in the markets in which we operate. Any workforce reductions in markets where sales volume does not support the number of installation and other personnel could in turn adversely affect retention, motivation and productivity. We may also subcontract certain aspects of the installation process to independent contractors. Training these independent contractors and monitoring them for compliance with our policies may require significant management oversight and may present additional risks and challenges compared to those related to managing our employees.

Furthermore, trained installers are typically able to more efficiently install solar energy systems. Shortages of skilled labor could significantly delay installations or otherwise increase our costs. While we do not currently have any unionized employees, we have expanded, and may continue to expand, into areas where labor unions are more prevalent. The unionization of our labor force could also increase our labor costs. In addition, a significant portion of our business has been concentrated in states such as California, where market conditions are particularly favorable to distributed solar energy generation. We have experienced and may in the future experience greater than expected turnover in our installers in those jurisdictions which would adversely impact the geographic mix of new solar energy system installations.

Because we are a licensed electrical contractor in every jurisdiction in which we operate, we are required to employ licensed electricians. As we expand into new markets, we are required to hire and/or contract with seasoned licensed electricians in order for us to qualify for the requisite state and local licenses. Because of the high demand for these seasoned licensed electricians, these individuals currently or in the future may demand greater compensation. In addition, our inability to attract and retain these qualifying electricians may adversely impact our ability to continue operations in current markets or expand into new areas.

If we cannot meet our hiring, retention and efficiency goals, we may be unable to complete our customers' projects on time, in an acceptable manner or at all. Any significant failures in this regard would materially impair our growth, reputation, business and financial results. If we are required to pay higher compensation than we anticipate, these greater expenses may also adversely impact our financial results and the growth of our business.

***We typically act as the licensed general contractor for our customers and are subject to risks associated with construction, cost overruns, delays, regulatory compliance and other contingencies, any of which could have a material adverse effect on our business and results of operations.***

We are a licensed contractor in every market we service, and we are typically responsible for every customer installation. We are the general contractor, electrician, construction manager and installer for nearly all our solar energy systems. We may be liable to customers for any damage we cause to their home, belongings or property during the installation of our systems, including any re-roofing services provided under our contracts. In addition, because the solar energy systems we deploy are high-voltage energy systems, we may incur liability for the failure to comply with electrical standards and manufacturer recommendations. Furthermore, prior to obtaining permission to operate our solar energy systems, the systems must pass various inspections. Any delay in passing, or inability to pass, such inspections, would adversely affect our results of operations. Because our profit on a particular installation is based in part on assumptions as to the cost of such project, damage for which we are liable, cost overruns, delays or other execution issues may cause us not to achieve our expected results or cover our costs for that project.

In addition, the installation of solar energy systems is subject to oversight and regulation in accordance with national, state and local laws and ordinances relating to building, fire and electrical codes, safety, environmental protection, utility interconnection and metering, and related matters. We also rely on certain of our employees to maintain professional licenses in many of the jurisdictions in which we operate, and our failure to employ properly licensed personnel could adversely affect our licensing status in those jurisdictions. It is difficult and costly to track the requirements of every authority having jurisdiction over our operations and our solar energy systems. Any new government regulations or utility policies pertaining to our systems, or changes to existing government regulations or utility policies pertaining to our systems, may result in significant additional expenses to us and our customers and, as a result, could cause a significant reduction in demand for our systems.

***We depend on a limited number of suppliers of solar energy system components and technologies to adequately meet anticipated demand for our solar energy systems. Due to the limited number of suppliers in our industry, the acquisition of any of these suppliers by a competitor or any shortage, delay, price change, imposition of tariffs or duties or other limitation in our ability to obtain components or technologies we use could result in sales and installation delays, cancellations and loss of market share.***

We purchase solar panels, inverters and other system components from a limited number of suppliers, making us susceptible to quality issues, shortages and price changes. If we fail to develop, maintain and expand our relationships with our suppliers, our ability to adequately meet anticipated demand for our solar energy systems may be adversely affected, or we may only be able to offer our systems at higher costs or after delays. If one or more of the suppliers that we rely upon to meet anticipated demand ceases or reduces production due to its financial condition, acquisition by a competitor or otherwise, is unable to increase production as industry demand increases or is otherwise unable to allocate sufficient production to us, it may be difficult to quickly identify alternative suppliers or to qualify alternative products on commercially reasonable terms, and our ability to satisfy this demand may be adversely affected. There are a limited number of suppliers of solar energy system components and technologies. While we believe there are other sources of supply for these products available, transitioning to a new supplier may result in additional costs and delays in acquiring our solar products and deploying our systems, and may require us to obtain the approval of our financing partners in order to utilize new products. These issues could harm our business or financial performance.

There have also been periods of industry-wide shortages of key components, including solar panels, in times of rapid industry growth. The manufacturing infrastructure for some of these components has a long lead-time, requires significant capital investment and relies on the continued availability of key commodity materials, potentially resulting in an inability to meet demand for these components. The solar industry is growing and, as a result, shortages of key components, including solar panels, may be more likely to occur, which in turn may result in price increases for such components. Even if industry-wide shortages do not occur, suppliers may decide to allocate key components with high demand or insufficient production capacity to more profitable customers, customers with long-term supply agreements or customers other than us and our supply of such components may be reduced as a result.

We have entered into multi-year agreements with certain of our major suppliers. These agreements are denominated in U.S. dollars. Since our revenue is also generated in U.S. dollars, we are mostly insulated from currency fluctuations. However, since our suppliers often incur a significant amount of their costs by purchasing raw materials and generating operating expenses in foreign currencies, if the value of the U.S. dollar depreciates significantly or for a prolonged period of time against these other currencies, this may cause our suppliers to raise the prices they charge us, which could harm our financial results. As noted above, the U.S. government has imposed a 30% tariff (decreasing by 5% each year for four years) on imports of solar cells not partially or fully assembled into other products and a 30% tariff (decreasing by 5% each year for four years) on imported solar panels from most foreign countries. It is unclear what further actions the current U.S. presidential administration may take with respect to existing and proposed trade agreements, or restrictions on trade generally. The existing tariffs, and any new tariffs, duties or other trade measures, or shortages, delays, price changes or other limitation in our ability to obtain components or technologies we use could limit our growth, cause cancellations or adversely affect our profitability, and result in loss of market share and damage to our brand.

***Our operating results may fluctuate from quarter to quarter and year to year, which could make our future performance difficult to predict and could cause our operating results for a particular period to fall below expectations, resulting in a severe decline in the price of our common stock.***

Our quarterly and annual operating results are difficult to predict and may fluctuate significantly in the future. We have experienced seasonal and quarterly fluctuations in the past. However, given that we are in a growing industry, the true extent of these fluctuations may have been masked by our historical growth rates and thus may not be readily apparent from our historical operating results and may be difficult to predict. For example, the amount of revenue we recognize in a given period depends in part on the types of customer contracts we have entered into—because revenue from System Sales is recognized when the system is placed into service whereas revenue from our PPAs and Solar Leases is recognized over the contract life, which is typically 20 years—and, in the case of PPAs and Solar Leases is dependent in part on the amount of energy generated by solar energy systems under such contracts. As a result, revenue derived from PPAs is impacted by seasonally shorter daylight hours in winter months. In addition, our ability to install solar energy systems is impacted by weather, such as during the winter months in the Northeast. Such delays can impact the timing of when we can install and begin to generate revenue from solar energy systems. As such, our past quarterly operating results may not be good indicators of future performance.

In addition to the other risks described in this “Risk Factors” section, the following factors could cause our operating results to fluctuate:

- the expiration or initiation of any rebates or incentives;
- significant fluctuations in customer demand for our offerings;
- our ability to complete installations and interconnect to the power grid in a timely manner;
- the availability and costs of suitable financing;
- the amount and timing of sales of SRECs;
- our ability to continue to expand our operations, and the amount and timing of expenditures related to this expansion;
- actual or anticipated changes in our growth rate relative to our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital-raising activities or commitments;
- changes in our pricing policies or terms or those of our competitors, including traditional utilities; and
- actual or anticipated developments in our competitors’ businesses or the competitive landscape.

For these or other reasons, the results of any prior quarterly or annual periods should not be relied upon as indications of our future performance. In addition, our actual revenue, key operating metrics and other operating results in future periods may fall short of the expectations of investors and financial analysts, which could have an adverse effect on the trading price of our common stock.

***The profitability and residual value of our solar energy systems during and at the end of the associated term of the PPA or Solar Lease may be lower than projected today and adversely affect our financial performance and valuation.***

We maintain ownership of the solar energy systems that we install under our PPAs or Solar Leases. We amortize the costs of our solar energy systems over a 30-year estimated useful life, which exceeds the period of the component warranties and the corresponding payment streams from our contracts with our customers. If we incur repair and maintenance costs on these systems after the warranties have expired, and if they then fail or malfunction, we will be liable for the expense of repairing these systems without a chance of recovery from our suppliers. We are also contractually obligated to remove, store and reinstall the solar energy systems, in many cases for a nominal fee, if customers need to replace or repair their roofs. However, customer fees may not cover our costs to remove, store and reinstall the solar energy systems. In addition, we typically bear the cost of removing the solar energy systems at the end of the term of the customer contract if the customer does not renew his or her contract or purchase the system. Furthermore, it is difficult to predict how future environmental regulations may affect the costs associated with the removal, disposal or recycling of our solar energy systems. We also face other factors that could increase the costs or diminish the production of a solar energy system, such as unanticipated damage or malfunctions, animal interference and weather-related matters. If the residual value of the systems is less than we expect at the end of the customer contract, after giving effect to any associated removal and redeployment costs, we may be required to accelerate all or some of the remaining unamortized costs. If the profitability or the residual value of the systems is lower than expected, this could materially impair our future operating results and estimated retained value.

***Compliance with occupational safety and health requirements and best practices can be costly, and noncompliance with such requirements may result in potentially significant monetary penalties, operational delays and adverse publicity.***

The installation of solar energy systems requires our employees to work at heights with complicated and potentially dangerous electrical systems and at potentially high temperatures. The evaluation and modification of buildings as part of the installation process requires our employees to work in locations that may contain potentially dangerous levels of asbestos, lead, mold or other materials known or believed to be hazardous to human health. We also maintain a fleet of over 750 trucks and other vehicles to support our installers and operations. There is substantial risk of serious injury or death if proper safety procedures are not followed. Our operations are subject to regulation under OSHA, DOT, and equivalent state laws. Changes to OSHA, DOT or state requirements, or stricter interpretation or enforcement of existing laws or regulations, could result in increased costs. If we fail to comply with applicable OSHA regulations, even if no work-related serious injury or death occurs, we may be subject to civil or criminal enforcement and be required to pay substantial penalties, incur significant capital expenditures or suspend or limit operations. We could be exposed to increased liability in the future. In the past, we have had workplace accidents and received citations from OSHA regulators for alleged safety violations, resulting in fines. Any such accidents, citations, violations, injuries or failure to comply with industry best practices may subject us to adverse publicity, damage our reputation and competitive position and adversely affect our business or financial performance.

***Problems with product quality or performance may cause us to incur expenses, may lower the residual value of our solar energy systems and may damage our market reputation and adversely affect our financial results.***

We agree to maintain the solar energy systems installed on our customers' homes in connection with a PPA or Solar Lease during the length of the term of our customer contracts, which is typically 20 years. We are exposed to any liabilities arising from the systems' failure to operate properly and are generally under an obligation to ensure that each system remains in good condition during the term of the agreement. We also agree to provide a workmanship warranty for the solar energy systems we sell to customers for a period of one to ten years and in many cases have agreed to operate and maintain those systems for no additional charge. As part of our operations and maintenance work, we provide a pass-through of the inverter and panel manufacturers' warranty coverage to our System Sales customers, which generally range from ten to 20 years. We also take advantage of manufacturers' warranty coverage when maintaining solar energy systems installed under PPAs and Solar Leases. One or more of these third-party manufacturers could cease operations and no longer honor these warranties, leaving us to fulfill these potential obligations to our customers or to our fund investors without underlying warranty coverage. We, either ourselves or through our investment funds, bear the cost of such major equipment. Even if the investment fund bears the direct expense of such replacement equipment, we could suffer financial losses associated with a loss of production from the solar energy systems.

To be competitive in the market and to comply with the requirements of our jurisdictions, our Solar Leases contain a performance guarantee in favor of the lessee. Solar Leases with performance guarantees require us to refund certain payments to the lessee if the solar energy system fails to generate a stated minimum amount of electricity in a 12-month period. We may also suffer financial losses associated with such refunds if significant performance guarantee payments are triggered.

Our failure to accurately predict future liabilities related to material quality or performance expenses could result in unexpected volatility in our financial condition. Because of the long estimated useful life of our solar energy systems, we have been required to make assumptions and apply judgments regarding a number of factors, including our anticipated rate of warranty claims, and the durability, performance and reliability of our solar energy systems. We have made these assumptions based on the historic performance of similar systems or on accelerated life cycle testing. Our assumptions could prove to be materially different from the actual performance of our systems, causing us to incur substantial expense to repair or replace defective solar energy systems in the future or to compensate customers for systems that do not meet their performance guarantees. Equipment defects, serial defects or operational deficiencies also would reduce our revenue from customer contracts because the customer payments under such agreements are dependent on system production or would require us to make refunds under performance guarantees. Any widespread product failures or operating deficiencies may damage our market reputation and adversely impact our financial results.

***We are responsible for providing maintenance, repair and billing on solar energy systems that are owned or leased by our investment funds on a fixed fee basis, and our financial performance could be adversely affected if our cost of providing such services is higher than we project.***

We typically provide a workmanship warranty for periods of five to 20 years to our investment funds for every system we sell to them. We are also generally contractually obligated to cover the cost of maintenance, repair and billing on any solar energy systems that we sell or lease to our investment funds. We are subject to a maintenance services agreement under which we are required to operate and maintain the system and perform customer billing services for a fixed fee that is calculated to cover our future expected maintenance and servicing costs of the solar energy systems in each investment fund over the term of the PPA or Solar Lease with the covered customers. If our solar energy systems require an above-average number of repairs or if the cost of repairing systems were higher than our estimate, we would need to perform such repairs without additional compensation. If our solar energy systems are damaged in the event of a natural disaster beyond our control, such as an earthquake, tornado, wildfire, tsunami or hurricane, losses could be outside the scope of insurance policies or exceed insurance policy limits, and we could incur unforeseen costs that could harm our business and financial condition. We may also incur significant costs for taking other actions in preparation for, or in reaction to, such events. When required to do so under the terms of a particular investment fund, we purchase property and business interruption insurance or other insurance policies with industry standard coverage and limits approved by the investor's third-party insurance advisors to hedge against risk, but such coverage may not cover our losses, and we have not acquired such coverage for all of our funds.

***Product liability claims against us or accidents could result in adverse publicity and potentially significant monetary damages.***

If our solar energy systems or other products were to injure someone, we could be exposed to product liability claims. In addition, it is possible that our products could cause property damage as a result of product malfunctions, defects, improper installation, fire or other causes. We rely on our general liability insurance to cover product liability claims. Any product liability claims we face could be expensive to defend and divert management's attention. The successful assertion of product liability claims against us could result in potentially significant monetary damages, penalties or fines, increase our insurance rates, subject us to adverse publicity, damage our reputation and competitive position and adversely affect sales of our systems and other products. In addition, product liability claims, injuries, defects or other problems experienced by other companies in the residential solar industry could lead to unfavorable market conditions to the industry as a whole and may have an adverse effect on our ability to attract new customers, thus affecting our growth and financial performance.

***Failure by our component suppliers to use ethical business practices and comply with applicable laws and regulations may adversely affect our business.***

We do not control our suppliers or their business practices. Accordingly, we cannot guarantee that they follow ethical business practices such as fair wage practices and compliance with environmental, safety and other local laws. A lack of demonstrated compliance could lead us to seek alternative suppliers, which could increase our costs and result in delayed delivery of our products, product shortages or other disruptions of our operations. Violation of labor or other laws by our suppliers or the divergence of a supplier's labor or other practices from those generally accepted as ethical in the United States or other markets in which we do business could also attract negative publicity for us and harm our business.

***Damage to our brand and reputation, or change or loss of use of our brand, could harm our business and results of operations.***

We depend significantly on our reputation for high-quality products, best-in-class customer service and the brand name "Vivint Solar" to attract new customers and grow our business. If we fail to continue to deliver our solar energy systems within the planned timelines, if our offerings do not perform as anticipated or if we damage any of our customers' properties or delay or cancel projects, our brand and reputation could be significantly impaired. Future technical improvements may allow us to offer lower prices or offer new technology to new customers; however, technical limitations in our current solar energy systems may prevent us from offering such lower prices or new technology to our existing customers. The inability of our current customers to benefit from technological improvements could cause our existing customers to lower the value they perceive our existing products offer and impair our brand and reputation.

We have focused particular attention on growing our direct-to-home sales force, leading us in some instances to take on candidates who we later determined did not meet our standards. In addition, given the sheer number of interactions our sales and other personnel have with customers and potential customers, it is inevitable that some customers' and potential customers' interactions with our company will be perceived as less than satisfactory. This has led to instances of customer complaints, some of which have affected our digital footprint on rating websites and social media platforms. If we cannot manage our hiring and training processes to avoid or minimize these issues to the extent possible, our reputation may be harmed and our ability to attract new customers would suffer.

Given our relationship with our sister company Vivint and the similarity in our names, customers may associate us with any problems experienced with Vivint, such as complaints with the Better Business Bureau. Because we have no control over Vivint, we cannot take remedial action to cure any issues Vivint has with its customers, and our brand and reputation may be harmed if we are mistaken for the same company.

In addition, if we were to no longer use, lose the right to continue to use, or if others use, the “Vivint Solar” brand, we could lose recognition in the marketplace among customers, suppliers and partners, which could affect our growth and financial performance, and would require financial and other investment, and management attention in new branding, which may not be as successful.

***Marketplace confidence in our liquidity and long-term business prospects is important for building and maintaining our business.***

Our financial condition, operating results and business prospects may suffer materially if we are unable to establish and maintain confidence about our liquidity and business prospects among consumers and within our industry. Our solar energy systems require ongoing maintenance and support. If we were to reduce operations now or in the future, existing buyers of our systems might have difficulty in having us repair or service our systems, which remain our responsibility under the terms of many of our customer contracts. As a result, consumers may be less likely to purchase our solar energy systems now if they are uncertain that our business will succeed or that our operations will continue for many years. Similarly, suppliers and other third parties will be less likely to invest time and resources in developing business relationships with us if they are not convinced that our business will succeed. Accordingly, in order to build and maintain our business, we must maintain confidence among customers, suppliers and other parties in our liquidity and long-term business prospects. We may not succeed in our efforts to build this confidence.

***If we fail to manage our recent and future operations and growth effectively, we may be unable to execute our business plan, maintain high levels of customer service or adequately address competitive challenges.***

We have experienced growth in recent periods with the cumulative capacity of our solar energy systems growing from 1,060.9 megawatts as of December 31, 2018 to 1,106.5 megawatts as of March 31, 2019, and we intend to continue to expand our business within existing markets and in a number of new locations in the future. This growth has placed, and any future growth may place, a strain on our management, operational and financial infrastructure. Our operations, growth and expansion require significant time and effort on the part of our management team as it is required to maintain and expand our relationships with customers, suppliers and other third parties and attract new customers, suppliers, sales channel partners and financing, as well as manage multiple geographic locations.

In addition, our current and planned operations, personnel, information technology and other systems and procedures might be inadequate to support our future growth and may require us to make additional unanticipated investments in our infrastructure. Our success and ability to further scale our business will depend, in part, on our ability to manage these changes in a cost-effective and efficient manner.

If we cannot manage our operations and growth, we may be unable to meet our or industry analysts’ expectations regarding growth, opportunity and financial targets, take advantage of market opportunities, execute our business strategies, meet our investment fund commitments or respond to competitive pressures. This could also result in declines in quality or customer satisfaction, increased costs, difficulties in introducing new offerings or other operational difficulties. Any failure to effectively manage our operations and growth could adversely impact our business and reputation.

***Expansion into new markets could be costly and time-consuming. Historically, we have only provided our offerings to residential customers, which could put us at a disadvantage relative to companies who also compete in other markets.***

We have historically only provided our offerings to residential customers. We compete with companies who sell solar energy systems in the commercial, industrial and government markets, in addition to the residential market. While we believe that in the future we could have opportunities to expand our operations into other markets, there are no assurances that our design and installation systems will work for non-residential customers or that we will be able to compete successfully with companies with historical presences in such markets or we may not realize the anticipated benefits of entering such markets, and entering new markets has numerous risks, including the following:

- incurring significant costs if we are required to adapt our current or develop new design and installation processes for use in non-residential applications;
- diversion of our management and employees from our core residential business;
- difficulty adapting our current or developing new marketing strategies and sales channels to non-residential customers;

- inability to obtain key customers, brand recognition and market share and compete successfully with companies with historical presences in such markets; and
- inability to achieve the financial and strategic goals for such market.

If we choose to pursue opportunities in additional markets, including batteries or electric vehicle charging stations, and are unable to successfully compete in such markets, our operating results and growth prospects could be materially adversely affected. Additionally, there is intense competition in the residential solar energy market in the markets in which we operate. As new entrants continue to enter into these markets, we may be unable to gain or maintain market share and we may be unable to compete with companies that earn revenue in both the residential market and non-residential markets.

***We may not realize the anticipated benefits of past or future acquisitions, and integration of these acquisitions may disrupt our business and management.***

In the future we may acquire companies, project pipelines, products or technologies or enter into joint ventures or other strategic initiatives. We may not realize the anticipated benefits of any future acquisition, and any acquisition has numerous risks. These risks include the following:

- difficulty in assimilating the operations and personnel of the acquired company;
- difficulty in effectively integrating the acquired technologies or products with our current technologies;
- difficulty in maintaining controls, procedures and policies during the transition and integration;
- disruption of our ongoing business and distraction of our management and employees from other opportunities and challenges due to integration issues;
- difficulty integrating the acquired company's accounting, management information and other administrative systems;
- inability to retain key technical and managerial personnel of the acquired business;
- inability to retain key customers, vendors and other business partners of the acquired business;
- inability to achieve the financial and strategic goals for the acquired and combined businesses;
- incurring acquisition-related costs or amortization costs for acquired intangible assets that could impact our operating results;
- potential failure of the due diligence processes to identify significant issues with product quality, intellectual property infringement and other legal and financial liabilities, among other things;
- potential inability to assert that internal controls over financial reporting are effective; and
- potential inability to obtain, or obtain in a timely manner, approvals from governmental authorities, which could delay or prevent such acquisitions.

Mergers and acquisitions of companies are inherently risky, and if we do not complete the integration of acquired businesses successfully and in a timely manner, we may not realize the anticipated benefits of the acquisitions to the extent anticipated, which could adversely affect our business, financial condition or results of operations.

***The loss of one or more members of our senior management or key employees may adversely affect our ability to implement our strategy.***

We are highly dependent on the efforts and abilities of the principal members of our senior management team, and the loss of one or more key executives could have a negative impact on our business.

We also depend on our ability to retain and motivate key employees and attract qualified new employees. None of our key executives are bound by employment agreements for any specific term, and we do not maintain key person life insurance policies on any of our executive officers. Our compensation structure, which includes salary, bonus, equity and benefits components, is important to our ability to attract, retain and motivate our employees. If we do not provide adequate compensation, or appropriately structure our equity grants, we may be unable to maintain our current workforce or attract new talent in the future, and we may be unable to replace key members of our management team and key employees if we lose their services. Integrating new employees into our team could prove disruptive to our operations, require substantial resources and management attention and ultimately prove unsuccessful. An inability to attract and retain sufficient managerial personnel who have critical industry experience and relationships could limit or delay our strategic efforts, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

***We may be subject to intellectual property rights claims by third parties, which are extremely costly to defend, could require us to pay significant damages and could limit our ability to use certain technologies.***

Third parties, including our competitors, may own patents or other intellectual property rights that cover aspects of our technology or business methods. Such parties may claim we have misappropriated, misused, violated or infringed third party intellectual property rights, and, if we gain greater recognition in the market, we face a higher risk of being the subject of claims that we have violated others' intellectual property rights. Any claim that we violate a third party's intellectual property rights, whether with or without merit, could be time-consuming, expensive to settle or litigate and could divert our management's attention and other resources. If we do not successfully settle or defend an intellectual property claim, we could be liable for significant monetary damages and could be prohibited from continuing to use certain technology, business methods, content or brands. To avoid a prohibition, we could seek a license from third parties, which could require us to pay significant royalties, increasing our operating expenses. If a license is not available at all or not available on reasonable terms, we may be required to develop or license a non-violating alternative, either of which could require significant effort and expense. If we cannot license or develop a non-violating alternative, we would be forced to limit or stop sales of our offerings and may be unable to effectively compete. Any of these results would adversely affect our business, results of operations, financial condition and cash flows. To deter other companies from making intellectual property claims against us or to gain leverage in settlement negotiations, we may be forced to significantly increase the size of our intellectual property portfolio through internal efforts and acquisitions from third parties, both of which could require significant expenditures. However, a robust intellectual property portfolio may provide little or no deterrence, particularly for patent holding companies or other patent owners that have no relevant product revenues.

***We use "open source" software in our solutions, which may restrict how we distribute our offerings, require that we release the source code of certain software subject to open source licenses or subject us to possible litigation or other actions that could adversely affect our business.***

We currently use in our solutions, and expect to continue to use in the future, software that is licensed under so-called "open source," "free" or other similar licenses. Open source software is made available to the general public on an "as-is" basis under the terms of a non-negotiable license. We currently combine our proprietary software with open source software but not in a manner that we believe requires the release of the source code of our proprietary software to the public. We do not plan to integrate our proprietary software with open source software in ways that would require the release of the source code of our proprietary software to the public, however, our use and distribution of open source software may entail greater risks than use of third-party commercial software. Open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. In addition, if we combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release to the public or remove the source code of our proprietary software. We may also face claims alleging noncompliance with open source license terms or infringement or misappropriation of proprietary software. These claims could result in litigation, require us to purchase a costly license or remove the software. In addition, if the license terms for open source software that we use change, we may be forced to re-engineer our solutions, incur additional costs or discontinue the sale of our offerings if re-engineering could not be accomplished on a timely basis. Although we monitor our use of open source software to avoid subjecting our offerings to unintended conditions, few courts have interpreted open source licenses, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our offerings. We cannot guarantee that we have incorporated open source software in our software in a manner that will not subject us to liability, or in a manner that is consistent with our current policies and procedures.

***The installation and operation of solar energy systems depends heavily on suitable solar and meteorological conditions. If meteorological conditions are unexpectedly unfavorable, the electricity production from our solar energy systems may be substantially below our expectations and our ability to timely deploy new systems may be adversely impacted.***

The energy produced and revenue and cash receipts generated by a solar energy system depend on suitable solar, atmospheric and weather conditions, all of which are beyond our control. Furthermore, components of our systems, such as panels and inverters, could be damaged by severe weather or other natural disasters, such as hailstorms, hurricanes, lightning or wildfires. Although we maintain insurance to cover for many such casualty events, our investment funds would be obligated to bear the expense of repairing the damaged solar energy systems, sometimes subject to limitations based on our ability to successfully make warranty claims. Our economic model and projected returns on our systems require us to achieve certain production results from our systems and, in some cases, we guarantee these results for both our customers and our investors. If the systems underperform for any reason, our financial results could suffer. These risks are amplified by the anticipated increase in the frequency of extreme weather events due to rising average temperatures worldwide.

Sustained unfavorable weather also could delay our installation of solar energy systems, leading to increased expenses and decreased revenue and cash receipts in the relevant periods. We have experienced seasonal fluctuations in our operations. The amount of revenue we recognize in a given period from PPAs is dependent in part on the amount of energy generated by solar energy systems under such contracts. As a result, customer agreements and incentives revenue is impacted by seasonally shorter daylight hours in winter months. In addition, our ability to install solar energy systems is impacted by weather. We have limited ability to install solar energy systems during the winter months in the Northeast. Such delays can impact the timing of when we can install and begin to generate revenue from solar energy systems. However, given that we are in a growing industry, the true extent of these fluctuations may have been masked by our historical growth rates and thus may not be readily apparent from our historical operating results and may be difficult to predict. As such, our historical operating results may not be indicative of future performance. Furthermore, weather patterns could change, making it harder to predict the average annual amount of sunlight striking each location where we install a solar energy system. This could make our solar energy systems less economical individually or in the aggregate. Any of these events or conditions could harm our business, financial condition, results of operations and prospects.

***Disruptions to our solar monitoring systems could negatively impact the operation of our business and our revenues and increase our expenses.***

Our ability to accurately charge our customers for the energy produced by our solar energy systems depends on our ability to monitor our customers' solar energy systems. Our customer agreements require our customers to maintain a broadband internet connection so that we may receive data regarding solar energy system production from their home networks. We could incur significant expenses or disruptions of our operations in connection with failures of our solar monitoring systems, including failures of our customers' home networks that would prevent us from accurately monitoring solar energy production. In addition, sophisticated hardware and operating system software and applications that we procure from third parties may contain defects in design or manufacture, including "bugs" and other problems that could unexpectedly interfere with the operation of our systems. The costs to us to eliminate or alleviate viruses and bugs, or any problems associated with failures of our customers' home networks could be significant, and the efforts to address these problems could result in interruptions, delays or cessation of service that may impede our sales, distribution or other critical functions. When a customer's solar monitoring system is not properly communicating with us, we estimate the production of their solar energy systems. Such estimates may prove inaccurate and could cause us to underestimate the power being generated by our solar energy systems and undercharge our customers, thereby harming our results of operations.

***We are exposed to the credit risk of our customers.***

Our customers most commonly purchase energy or lease solar energy systems from us pursuant to one of two types of long-term contracts: a PPA or a Solar Lease. The terms of PPAs and Solar Leases are typically for 20 years and require the customer to make monthly payments to us. Accordingly, we are subject to the credit risk of our customers. As of March 31, 2019, the average FICO score of our customers was approximately 760. However, as we grow our business, the risk of customer defaults could increase. Our reserve for this exposure is estimated to be \$6.0 million as of March 31, 2019, and our future exposure may exceed the amount of such reserves. While we do not currently extend credit to customers interested in System Sales, many of those customers are interested in financing the purchase of a solar energy system. While these customers may seek third-party financing through their own lender or a lender with whom we have a relationship, if they do not have sufficient credit to qualify for a loan, they may be unable to purchase a solar energy system. This could reduce our potential customer pool and limit our System Sales.

***A failure to comply with laws and regulations relating to our interactions with current or prospective residential customers could result in negative publicity, claims, investigations and litigation, and adversely affect our financial performance.***

Our business focuses on contracts and transactions with residential customers. We must comply with numerous federal, state and local laws and regulations that govern matters relating to our interactions with consumers, including those pertaining to privacy and data security, consumer financial and credit transactions, home improvement contracts, warranties, door-to-door solicitation as well as specific regulations pertaining to sales and installations of solar energy systems. These laws and regulations are dynamic and subject to potentially differing interpretations, and various federal, state and local legislative and regulatory bodies may initiate investigations, expand current laws or regulations, or enact new laws and regulations, regarding these matters. Changes in these laws or regulations or their interpretation could dramatically affect how we do business, acquire customers, and manage and use information we collect from and about current and prospective customers and the costs associated therewith.

Several states in which we operate have enacted laws and regulations that provide enhanced rights and require increased disclosures to customers. Most of these laws and regulations are specific to the solar industry and have required changes to our contracts and processes. Some of the laws have been enacted along with other changes to state law that further impact the residential solar industry. Other laws and regulations, such as the ones that relate to licensing of sales representatives, are applicable to a wide array of industries, and failure to comply with such regulations could result in citations, fines, license suspensions, revocations and other penalties. Further, to the extent that states undertake enforcement actions against us, or other states enact further laws or regulations applicable to our industry, we may be required to expend additional resources in order to modify our business practices to meet these regulatory requirements.

We strive to comply with all applicable laws and regulations relating to our interactions with residential customers. It is possible, however, that these requirements may be interpreted and applied in a manner that is inconsistent from one jurisdiction to another and may conflict with other rules or our practices. For example, in March 2018, the New Mexico Attorney General's office filed an action against us and certain of our officers alleging violation of state consumer protection statutes. If federal, state or other local regulators or agencies were to initiate an investigation against us or enact regulations relating to the marketing of our products to residential consumers, responding to such investigation or complying with such regulations could divert management's attention to our business, require us to modify our operations and incur significant additional expenses, which could have an adverse effect on our business, financial condition and results of operations or could reduce the number of our potential customers.

We cannot ensure that our sales force will comply with our standard practices and policies, as well as applicable laws and regulations, including sales licensure requirements. Any such non-compliance, or the perception of noncompliance, potentially could expose us to claims, proceedings, litigation, investigations, and/or enforcement actions by private parties and regulatory authorities, as well as substantial fines and negative publicity, each of which may materially and adversely affect our business. We have incurred, and will continue to incur, significant expenses to comply with the laws, regulations and industry standards that apply to us.

***Any unauthorized access to, or disclosure or theft of personal information or other proprietary information we gather, store or use could harm our reputation and subject us to claims or litigation.***

We receive, store and use personal information of our customers, including names, addresses, e-mail addresses, credit information and other housing and energy use information. We also store and use personal information of our employees. In addition, we previously used certain shared information and technology systems with Vivint, and Vivint continues to store some of our historical data. We take certain steps in an effort to protect the security, integrity and confidentiality of the personal information and other proprietary and confidential information we collect, store or transmit, but there is no guarantee that inadvertent or unauthorized use or disclosure will not occur or that third parties will not gain unauthorized access to this information despite our efforts. Because techniques used to obtain unauthorized access or sabotage systems change frequently and generally are not identified until they are launched against a target, we and our suppliers or vendors, including Vivint, may be unable to anticipate these techniques or to implement adequate preventative or mitigation measures. In addition, due to a potential time lapse between when a sales representative leaves us and when we are made aware of the separation, sales representatives may have continued access to our customers' information for a period when they should not.

We are also subject to laws and regulations relating to the collection, use, retention, security and transfer of personal information of our customers. In many cases, these laws apply not only to third-party transactions, but also to transfers of information between one company and its subsidiaries. Several jurisdictions have passed new laws in this area, and other jurisdictions are considering imposing additional restrictions. These laws continue to develop and may be inconsistent from jurisdiction to jurisdiction. In addition to government regulation, privacy advocates and industry groups may propose new and different self-regulatory standards that either legally or contractually apply to us, such as the Payment Card Industry Data Security Standard, or PCI DSS, which may affect any processes associated with handling credit card numbers. In the event we fail to be compliant with the PCI DSS, fines and other penalties could result. Complying with emerging and changing requirements may cause us to incur costs or require us to change our business practices. Any actual or alleged failure by us, our affiliates or other parties with whom we do business to comply with privacy-related or data protection laws, regulations and industry standards could result in proceedings against us by governmental entities or others, which could have a detrimental effect on our business, results of operations and financial condition.

Any actual or perceived unauthorized use or disclosure of, or access to, any personal information or other proprietary or confidential information maintained by us or on our behalf, whether through breach of our systems, breach of the systems of our suppliers or vendors, including Vivint, by an unauthorized party, or through employee or contractor error, theft or misuse, or otherwise, could harm our business. If any such unauthorized use or disclosure of, or access to, such personal information were to occur or to be believed to have occurred, our operations could be seriously disrupted, and we could be subject to demands, claims and litigation by private parties, and investigations, related actions, and penalties by regulatory authorities. In addition, we could incur significant costs in notifying affected persons and entities and otherwise complying with the multitude of federal, state and local laws and regulations relating to unauthorized access to, or use or disclosure of, personal information. Finally, any perceived or actual unauthorized access to, or use or disclosure of, such information could harm our reputation, substantially impair our ability to attract and retain customers and have an adverse impact on our business, financial condition and results of operations.

***We are involved, and may become involved in the future, in legal proceedings that, if adversely adjudicated or settled, could adversely affect our financial results.***

We are, and may in the future become, party to litigation. For examples, see Note 19—Commitments and Contingencies. While we intend to defend against these actions vigorously, the ultimate outcomes of these cases are presently not determinable as they are in preliminary phases. In general, litigation claims can be expensive and time consuming to bring or defend against, may result in the diversion of management attention and resources from our business and business goals and could result in settlements or damages that could significantly affect financial results and the conduct of our business. It is not possible to predict the final resolution of the litigation to which we currently are or may in the future become party, and the impact of certain of these matters on our business, prospects, financial condition, liquidity, results of operations and cash flows.

***Our reported financial results may be affected, and comparability of our financial results with other companies in our industry may be impacted, by changes in the accounting principles generally accepted in the United States.***

Generally accepted accounting principles in the United States are subject to change and interpretation by the Financial Accounting Standards Board, or FASB, the Securities and Exchange Commission, or SEC, and various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results and on the financial results of other companies in our industry and may even affect the reporting of transactions completed before the announcement or effectiveness of a change. For example, in February 2016 the FASB issued Accounting Standards Update No. 2016-02, Leases (Topic 842), which primarily changed the accounting for operating leases by requiring us to add right-of-use assets and lease liabilities to our consolidated balance sheets as of the adoption date of January 1, 2019. Other companies in our industry may be affected differently by the adoption of Topic 842 or other new accounting standards, including timing of the adoption of new accounting standards, adversely affecting the comparability of our financial statements. See Note 2—Summary of Significant Accounting Policies for information about Topic 842.

#### **Risks Related to our Relationship with Vivint**

***Our inability to resolve any disputes that arise between us and Vivint with respect to our past and ongoing relationships may adversely affect our financial results, and such disputes may also result in claims for indemnification.***

Disputes may arise between Vivint and us in a number of areas relating to our past and ongoing relationships, including the following:

- intellectual property, labor, tax, employee benefits, indemnification and other matters arising from our relationship with Vivint;
- employee retention and recruiting;
- our ability to use, modify and enhance the intellectual property that we have licensed from Vivint;
- business combinations or divestitures;
- exclusivity arrangements;
- the nature, quality and pricing of products and services Vivint agrees to provide to us; and
- business opportunities that may be attractive to both Vivint and us.

We have entered into certain agreements with Vivint. In August 2017, we entered into a sales dealer agreement with Vivint. Under this agreement, each party will act as a dealer for the other party to market, promote and sell each other's products. The agreement has a two-year term, which will be automatically renewed for successive one-year terms unless written notice of termination is provided by one of the parties to the other no less than 90 days prior to the end of the then current term. The products, territories and consideration that is payable by each party to the other is determined in accordance with the agreement. There can be no assurances regarding the number of sales and installations of our products that Vivint will be able to generate, or the number of leads that we will be able to generate. In addition, as we work to expand our customer opportunities and product offerings through our relationship with Vivint, our business and results of operations may be adversely affected by factors that affect Vivint's business and our relationship. Pursuant to the terms of a Non-Competition Agreement we have entered into with Vivint, as amended, we and Vivint each have agreed not to solicit for employment any member of the other's executive or senior management team, or any of the other's employees who primarily manage sales, installation or services of the other's products and services until the termination of the sales dealer agreement. The commitment not to solicit each other's employees lasts for 180 days after such employee finishes employment with us or Vivint. Notwithstanding the above, a small number of sales representatives work for both Vivint and us. To the extent there is any confusion concerning the relationship between us and Vivint with respect to the products and services we offer and the products and services of Vivint, such sales representatives could expose us to increased claims, proceedings, litigation and investigations by consumers and regulatory authorities. In addition, having sales representatives who work for both Vivint and us could distract such sales representatives, impact the effectiveness of our sales force, and potentially increase the turnover of our existing sales representatives who may feel displaced by the addition of Vivint sales representatives to our sales force.

We may not be able to resolve any potential conflicts relating to these agreements or otherwise, and even if we do, the resolution may be less favorable than if we were dealing with an unaffiliated party. In addition, we have indemnification obligations under some of the agreements we have entered into with Vivint, and disputes between us and Vivint may result in claims for indemnification. However, we do not currently expect that these indemnification obligations will materially affect our potential liability compared to what it would be if we did not enter into these agreements with Vivint.

### **Risks Related to Our Common Stock**

*The price of our common stock may be volatile, and the value of your investment could decline.*

The trading price of our common stock may be highly volatile. From our initial public offering on October 1, 2014 to March 31, 2019, the closing price of our common stock has ranged from a high of \$16.01 to a low of \$2.22. Our stock price could continue to be subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include:

- our financial condition and the availability and terms of future financing;
- changes in laws or regulations applicable to our industry or offerings, including any new tariffs or trade regulations that affect our ability to import goods at attractive prices or at all;
- additions or departures of key personnel;
- actual or anticipated changes in expectations regarding our performance by investors or securities analysts;
- securities litigation involving us;
- price and volume fluctuations in the overall stock market;
- volatility in the market price and trading volume of companies in our industry or companies that investors consider comparable;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- the failure of securities analysts to cover our common stock;
- our ability to protect our intellectual property and other proprietary rights;
- sales of our common stock by us, our stockholders or our employees, including sales of equity awards granted to our employees to cover tax withholding obligations;
- litigation or disputes involving us, our industry or both;
- major catastrophic events;
- general economic and market conditions; and
- potential acquisitions.

Further, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. In addition, the stock prices of many renewable energy companies have experienced wide fluctuations that have often been unrelated to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may cause the market price of our common stock to decline. If the market price of our common stock decreases, investors may not realize any return on investment and may lose some or all of their investments. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We could become the target of additional securities litigation in the future, which could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

***As an emerging growth company and a smaller reporting company within the meaning of the Securities Act, we will utilize certain modified disclosure requirements, and we cannot be certain if these reduced requirements will make our common stock less attractive to investors.***

We are an emerging growth company, and, for as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to "emerging growth companies" including, but not limited to, not being required to have our independent registered public accounting firm audit our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We have utilized, and we plan in future filings with the Securities and Exchange Commission, or SEC, to continue to utilize, the modified disclosure requirements available to emerging growth companies. As a result, our stockholders may not have access to certain information they may deem important.

We could remain an emerging growth company until the earliest of (1) December 31, 2019, (2) the last day of the first fiscal year in which our annual gross revenue exceeds \$1.1 billion, (3) the date that we become a large accelerated filer as defined in Rule 12b-2 under the Exchange Act, which would occur if we become a seasoned issuer and the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the last business day of our most recently completed second fiscal quarter and (4) the date on which we have issued more than \$1 billion in non-convertible debt securities during the preceding three-year period.

Even after we no longer qualify as an emerging growth company, we may still qualify as a smaller reporting company, which would allow us to take advantage of many of the same exemptions from disclosure requirements. Similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation in periodic reports and proxy statements and have certain other reduced disclosure obligations in their SEC filings.

We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

***Our stock price could decline due to the large number of outstanding shares of our common stock eligible for future sale.***

Sales of substantial amounts of our common stock in the public market, or the perception that these sales could occur, could cause the market price of our common stock to decline. These sales could also make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem appropriate.

As of March 31, 2019, we had 120.6 million outstanding shares of common stock. These shares may be sold in the public market in the United States, subject to prior registration in the United States, if required, or reliance upon an exemption from U.S. registration, including, in the case of shares held by affiliates or control persons, compliance with the volume restrictions of Rule 144.

In addition, we have granted and expect to continue to grant equity awards to our directors and employees as additional compensation in an effort to align their interests with those of our stockholders. Approximately 2.7 million shares of our common stock are reserved for future issuance under our Long-Term Incentive Plan, and these shares will issue, vest and be immediately tradable without restriction on the date that our Sponsor and its affiliates achieve specified returns on their invested capital.

Further, equity awards for 11.9 million shares of common stock remained outstanding as of March 31, 2019, with 1.8 million of those shares being vested and exercisable as of March 31, 2019. Additionally, “sell-to-cover” transactions are utilized in connection with the vesting and settlement of equity awards that are granted to our employees so that shares of our common stock are sold on behalf of our employees in an amount sufficient to cover the tax withholding obligations associated with these awards. As a result of these transactions, a significant number of shares of our stock may be sold over a limited time period in connection with significant vesting events.

Stockholders owning an aggregate of 76.4 million shares of our common stock are entitled, under contracts providing for registration rights, to require us to register shares of our common stock owned by them for public sale in the United States, subject to the restrictions of Rule 144. In October 2014, we filed a registration statement on Form S-8 to register 22.9 million shares previously issued or reserved for future issuance under our equity compensation plans and agreements, and we registered an additional 12.9 million shares in March 2017. Under these registration statements, subject to the satisfaction of applicable vesting periods, the shares of common stock issued upon exercise of outstanding options and vested restricted stock units will be available for immediate resale in the United States in the open market. Sales of our common stock as restrictions end or pursuant to registration rights may make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate. These sales also could cause our stock price to fall and make it more difficult for investors to sell shares of our common stock.

***Our Sponsor and its affiliates control us, and their interests may conflict with ours or investors’ in the future.***

As of March 31, 2019, 313 Acquisition LLC, which is controlled by our Sponsor and its affiliates, beneficially owned approximately 62% of our common stock. Moreover, under our organizational documents and the stockholders agreement with 313 Acquisition LLC, for so long as our existing owners and their affiliates retain significant ownership of us, we will agree to nominate to our board individuals designated by our Sponsor, whom we refer to as the Sponsor directors. In addition, for so long as 313 Acquisition LLC continues to own shares representing a majority of the total voting power, we will agree to nominate to our board individuals appointed by Summit Partners and Todd Pedersen. Even when our Sponsor and its affiliates and certain of its co-investors cease to own shares of our stock representing a majority of the total voting power, for so long as our Sponsor and its affiliates continue to own a significant percentage of our stock our Sponsor will still be able to significantly influence the composition of our board of directors and the approval of actions requiring stockholder approval. In addition, under the stockholders agreement, affiliates of our Sponsor will have consent rights with respect to certain actions involving our company, provided a certain aggregate ownership threshold is maintained collectively by our Sponsor and its affiliates, together with Summit Partners, Todd Pedersen and Alex Dunn and their respective affiliates. Accordingly, for such period of time, our Sponsor and certain of its co-investors will have significant influence with respect to our management, business plans and policies, including the appointment and removal of our officers. In particular, for so long as our Sponsor and its affiliates continue to own a significant percentage of our stock, our Sponsor will be able to cause or prevent a change of control of our company or a change in the composition of our board of directors and could preclude any unsolicited acquisition of our company. The concentration of ownership could deprive investors of an opportunity to receive a premium for shares of common stock as part of a sale of our company and ultimately might affect the market price of our common stock.

Our Sponsor and its affiliates engage in a broad spectrum of activities, including investments in the energy sector. In the ordinary course of their business activities, our Sponsor and its affiliates may from time to time acquire and hold interests in businesses that compete directly or indirectly with us. For example, affiliates of our Sponsor regularly invest in utility companies and solar and renewable energy companies that may compete with us. Our certificate of incorporation provides that none of our Sponsor, any of its affiliates or any director who is not employed by us (including any non-employee director who serves as one of our officers in both his or her director and officer capacities) or his or her affiliates will have any duty to refrain from engaging, directly or indirectly, in the same business activities or similar business activities or lines of business in which we operate. Our Sponsor also may pursue acquisition opportunities that may be complementary to our business, and, as a result, those acquisition opportunities may not be available to us. In addition, our Sponsor may have an interest in pursuing acquisitions, divestitures and other transactions that, in its judgment, could enhance its investment, even though such transactions might involve risks to investors.

***We have elected to take advantage of the “controlled company” exemption to the corporate governance rules for New York Stock Exchange, or NYSE, listed companies, which could make our common stock less attractive to some investors or otherwise harm our stock price.***

Because we qualify as a “controlled company” under the corporate governance rules for NYSE listed companies, we are not required to have a majority of our board of directors be independent, nor are we required to have a compensation committee or an independent nominating function. In light of our status as a controlled company, in the future we could elect not to have a majority of our board of directors be independent or not to have a compensation committee or nominating and governance committee. Accordingly, should the interests of 313 Acquisition LLC or our Sponsor differ from those of other stockholders, the other stockholders may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance rules for NYSE listed companies. Our status as a controlled company could make our common stock less attractive to some investors or otherwise harm our stock price.

***Provisions in our certificate of incorporation, bylaws, stockholders agreement and under Delaware law might discourage, delay or prevent a change of control of our company or changes in our management and, therefore, depress the trading price of our common stock.***

Our certificate of incorporation, bylaws and stockholders agreement contain provisions that could depress the trading price of our common stock by discouraging, delaying or preventing a change of control of our company or changes in our management that the stockholders of our company may believe advantageous. These provisions include:

- establishing a classified board of directors so that not all members of our board of directors are elected at one time;
- authorizing “blank check” preferred stock that our board of directors could issue to increase the number of outstanding shares to discourage a takeover attempt;
- limiting the ability of stockholders to call a special stockholder meeting;
- limiting the ability of stockholders to act by written consent;
- providing that the board of directors is expressly authorized to make, alter or repeal our bylaws;
- establishing advance notice requirements for nominations for elections to our board of directors or for proposing matters that can be acted upon by stockholders at stockholder meetings;
- requiring our Sponsor to consent to certain actions, as described under the section of our 2018 Proxy Statement captioned “Related Party Transactions—Agreements with Our Sponsor,” for so long as our Sponsor, Summit Partners, Todd Pedersen and Alex Dunn or their respective affiliates collectively own, in the aggregate, at least 30% of our outstanding shares of common stock;
- the removal of directors only for cause and only upon the affirmative vote of the holders of at least 66-2/3% in voting power of all the then-outstanding shares of stock of our company entitled to vote thereon, voting together as a single class, if Blackstone and its affiliates beneficially own, in the aggregate, less than 30% in voting power of the stock of our company entitled to vote generally in the election of directors; and
- that certain provisions may be amended only by the affirmative vote of the holders of at least 66-2/3% in voting power of all the then-outstanding shares of stock of our company entitled to vote thereon, voting together as a single class, if Blackstone and its affiliates beneficially own, in the aggregate, less than 30% in voting power of the stock of our company entitled to vote generally in the election of directors.

***If securities or industry analysts do not publish or cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.***

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If any of the analysts who do now, or may in the future, cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, our stock price would likely decline. If any analyst who may cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

## Item 6. Exhibits

31.1	<a href="#">Certification of Chief Executive Officer, pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002</a>
31.2	<a href="#">Certification of Chief Financial Officer, pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002</a>
32.1*	<a href="#">Certification of Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</a>
32.2*	<a href="#">Certification of Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</a>
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

\* The Certifications attached as Exhibits 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of Vivint Solar, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Form 10-Q, irrespective of any general incorporation language contained in such filing.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

VIVINT SOLAR, INC.

Date: May 9, 2019

/s/ David Bywater  
David Bywater  
Chief Executive Officer  
*(Principal Executive Officer)*

Date: May 9, 2019

/s/ Dana Russell  
Dana Russell  
Chief Financial Officer and Executive Vice President  
*(Principal Financial Officer)*

**CERTIFICATION PURSUANT TO  
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,  
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, David Bywater, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Vivint Solar, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 9, 2019

By: \_\_\_\_\_ /s/ David Bywater  
David Bywater  
Chief Executive Officer  
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO  
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,  
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Dana Russell, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Vivint Solar, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 9, 2019

By: \_\_\_\_\_ /s/ Dana Russell  
Dana Russell  
Chief Financial Officer and Executive Vice President  
(Principal Financial and Accounting Officer)

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Vivint Solar, Inc. (the "Company") on Form 10-Q for the period ending March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: May 9, 2019

By: \_\_\_\_\_ /s/ David Bywater  
David Bywater  
Chief Executive Officer  
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Vivint Solar, Inc. (the "Company") on Form 10-Q for the period ending March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: May 9, 2019

By: \_\_\_\_\_ /s/ Dana Russell  
Dana Russell  
Chief Financial Officer and Executive Vice President  
(Principal Financial and Accounting Officer)