UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2020

OR

☐ **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	**45-5605880**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**
1800 West Ashton Blvd.	
Lehi, UT	**84043**
(Address of principal executive offices)	**(Zip Code)**

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

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

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	☐	Accelerated filer	☒
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

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 ☒

As of May 1, 2020, the registrant had 124,670,197 shares of common stock, $0.01 par value per share, outstanding.

Vivint Solar, Inc.

Quarterly Report on Form 10-Q

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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, 2020	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	$ 131,077	$ 166,048
Accounts receivable, net	25,952	24,314
Inventories	14,383	20,576
Prepaid expenses and other current assets	33,838	41,137
Total current assets	205,250	252,075
Restricted cash and cash equivalents	94,611	89,892
Solar energy systems, net	1,854,904	1,759,861
Property and equipment, net	20,888	17,500
Other non-current assets, net	683,012	680,062
TOTAL ASSETS(1)	$ 2,858,665	$ 2,799,390
LIABILITIES, REDEEMABLE NON-CONTROLLING INTERESTS AND EQUITY		
Current liabilities:		
Accounts payable	$ 52,355	$ 59,007
Distributions payable to non-controlling interests and redeemable non-controlling interests	7,474	10,253
Accrued compensation	28,892	34,149
Current portion of long-term debt	24,396	16,405
Current portion of deferred revenue	24,631	40,715
Current portion of finance lease obligation	2,497	2,274
Accrued and other current liabilities	72,410	78,539
Total current liabilities	212,655	241,342
Long-term debt, net of current portion	1,548,228	1,483,256
Deferred revenue, net of current portion	20,383	17,631
Finance lease obligation, net of current portion	6,669	6,443
Deferred tax liability, net	604,473	583,695
Other non-current liabilities	137,245	74,423
Total liabilities(1)	2,529,653	2,406,790
Commitments and contingencies (Note 19)		
Redeemable non-controlling interests	116,481	115,384
Stockholders' equity:		
Common stock, $0.01 par value—1,000,000 shares authorized, 124,670 shares issued and outstanding as of March 31, 2020; 1,000,000 shares authorized, 123,056 shares issued and outstanding as of December 31, 2019	1,247	1,231
Additional paid-in capital	596,589	591,639
Accumulated other comprehensive loss	(39,621)	(20,436)
Accumulated deficit	(422,546)	(381,961)
Total stockholders' equity	135,669	190,473
Non-controlling interests	76,862	86,743
Total equity	212,531	277,216
TOTAL LIABILITIES, REDEEMABLE NON-CONTROLLING INTERESTS AND EQUITY	$ 2,858,665	$ 2,799,390

(1) The Company's assets as of March 31, 2020 and December 31, 2019 include $2,287.7 million and $2,194.3 million consisting of assets of variable interest entities ("VIEs") that can only be used to settle obligations of the VIEs. These assets include cash and cash equivalents of $59.5 million and $82.8 million as of March 31, 2020 and December 31, 2019; accounts receivable, net, of $16.0 million and $8.9 million as of March 31, 2020 and December 31, 2019; prepaid expenses and other current assets of $1.4 million and $1.7 million as of March 31, 2020 and December 31, 2019; restricted cash and cash equivalents of $9.7 million and $8.9 million as of March 31, 2020 and December 31, 2019; solar energy systems, net, of $1,645.5 million and $1,587.4 million as of March 31, 2020 and December 31, 2019; and other non-current assets, net of $555.6 million and $504.7 million as of March 31, 2020 and December 31, 2019. The Company's liabilities as of March 31, 2020 and December 31, 2019 include $264.6 million and $233.4 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 $7.5 million and $10.3 million as of March 31, 2020 and December 31, 2019; accrued and other current liabilities of $6.4 million and $6.4 million as of March 31, 2020 and December 31, 2019; long-term debt of $233.4 million and $201.6 million as of March 31, 2020 and December 31, 2019; deferred revenue of $16.7 million and $14.8 million as of March 31, 2020 and December 31, 2019; and other non-current liabilities of $0.6 million and $0.3 million as of March 31, 2020 and December 31, 2019. 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, 2020	Three Months Ended March 31, 2019
Revenue:		
Customer agreements and incentives	$ 51,276	$ 39,603
Solar energy system and product sales	39,875	29,768
Total revenue	91,151	69,371
Cost of revenue:		
Cost of revenue—customer agreements and incentives	52,823	40,191
Cost of revenue—solar energy system and product sales	22,048	17,263
Total cost of revenue	74,871	57,454
Gross profit	16,280	11,917
Operating expenses:		
Sales and marketing	39,608	29,634
Research and development	556	469
General and administrative	28,026	23,049
Total operating expenses	68,190	53,152
Loss from operations	(51,910)	(41,235)
Interest expense, net	21,632	19,127
Other expense, net	28,358	1,385
Loss before income taxes	(101,900)	(61,747)
Income tax expense	23,414	27,487
Net loss	(125,314)	(89,234)
Net loss attributable to non-controlling interests and redeemable non-controlling interests	(85,054)	(62,992)
Net loss attributable to common stockholders	$ (40,260)	$ (26,242)
Net loss attributable per share to common stockholders:		
Basic and diluted	$ (0.32)	$ (0.22)
Weighted-average shares used in computing net loss attributable per share to common stockholders:		
Basic and diluted	123,922	120,307

See accompanying notes to condensed consolidated financial statements.

Vivint Solar, Inc.

Condensed Consolidated Statements of Comprehensive Loss
(In thousands)
(Unaudited)

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019
Net loss attributable to common stockholders	$ (40,260)	$ (26,242)
Other comprehensive loss:		
Unrealized losses on cash flow hedging instruments (net of tax effect of $(7,401) and $(1,777))	(19,836)	(4,883)
Less: Interest expense on derivatives recognized into earnings (net of tax effect of $(243) and $(86))	(651)	(236)
Total other comprehensive loss	(19,185)	(4,647)
Comprehensive loss	$ (59,445)	$ (30,889)

See accompanying notes to condensed consolidated financial statements.

Vivint Solar, Inc.

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

Three Months Ended March 31, 2020	Redeemable Non-Controlling Interests	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity	Non-Controlling Interests	Total Equity
Balance — December 31, 2019	$ 115,384	123,056	$ 1,231	$ 591,639	$ (20,436)	$ (381,961)	$ 190,473	$ 86,743	$ 277,216
Cumulative-effect adjustment from adoption of new ASUs	—	—	—	—	—	(325)	(325)	—	(325)
Stock-based compensation expense	—	—	—	3,939	—	—	3,939	—	3,939
Issuance of common stock, net of tax withholdings	—	1,614	16	1,011	—	—	1,027	—	1,027
Contributions from non-controlling interests and redeemable non-controlling interests	15,703	—	—	—	—	—	—	70,046	70,046
Distributions to non-controlling interests and redeemable non-controlling interests	(996)	—	—	—	—	—	—	(8,483)	(8,483)
Total other comprehensive loss	—	—	—	—	(19,185)	—	(19,185)	—	(19,185)
Net loss	(13,610)	—	—	—	—	(40,260)	(40,260)	(71,444)	(111,704)
Balance — March 31, 2020	$ 116,481	124,670	$ 1,247	$ 596,589	$ (39,621)	$ (422,546)	$ 135,669	$ 76,862	$ 212,531

Three Months Ended March 31, 2019	Redeemable Non-Controlling Interests	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity	Non-Controlling Interests	Total Equity
Balance — December 31, 2018	$ 119,572	120,114	$ 1,201	$ 574,248	$ (7,223)	$ (279,631)	$ 288,595	$ 73,617	$ 362,212
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 income	—	—	—	—	(4,647)	—	(4,647)	—	(4,647)
Net loss	(8,527)	—	—	—	—	(26,242)	(26,242)	(54,465)	(80,707)
Balance — March 31, 2019	$ 118,667	120,612	$ 1,206	$ 577,961	$ (11,870)	$ (306,028)	$ 261,269	$ 88,140	$ 349,409

See accompanying notes to condensed consolidated financial statements.

Vivint Solar, Inc.

Condensed Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (125,314)	$ (89,234)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	21,224	17,659
Deferred income taxes	27,937	27,727
Stock-based compensation	3,939	3,679
Loss on solar energy systems and property and equipment	4,811	1,233
Noncash interest and other expense	1,553	1,645
Reduction in lease pass-through financing obligation	(712)	(695)
Losses on interest rate swaps	28,358	1,384
Changes in operating assets and liabilities:		
Accounts receivable, net	(1,948)	(5,785)
Inventories	6,193	1,725
Prepaid expenses and other current assets	6,227	2,746
Other non-current assets, net	(51,116)	(26,539)
Accounts payable	5,062	1,876
Accrued compensation	(5,460)	(4,068)
Deferred revenue	(13,332)	(2,731)
Accrued and other liabilities	(3,284)	(615)
Net cash used in operating activities	(95,862)	(69,993)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Payments for the cost of solar energy systems	(79,190)	(64,526)
Payments for property and equipment	(2,361)	(291)
Proceeds from disposals of solar energy systems and property and equipment	890	649
Purchase of intangible assets	(228)	—
Net cash used in investing activities	(80,889)	(64,168)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from investment by non-controlling interests and redeemable non-controlling interests	85,749	84,368
Distributions paid to non-controlling interests and redeemable non-controlling interests	(12,258)	(9,013)
Proceeds from long-term debt	77,373	61,355
Payments on long-term debt	(5,073)	(5,593)
Proceeds from lease pass-through financing obligation	877	864
Principal payments on finance lease obligations	(1,196)	(271)
Net proceeds from issuance of common stock	1,027	39
Net cash provided by financing activities	146,499	131,749
NET DECREASE IN CASH AND CASH EQUIVALENTS, INCLUDING RESTRICTED AMOUNTS	(30,252)	(2,412)
CASH AND CASH EQUIVALENTS, INCLUDING RESTRICTED AMOUNTS—Beginning of period	255,940	290,896
CASH AND CASH EQUIVALENTS, INCLUDING RESTRICTED AMOUNTS—End of period	$ 225,688	$ 288,484
NONCASH INVESTING AND FINANCING ACTIVITIES:		
Costs of solar energy systems included in changes in accounts payable, accrued compensation and accrued and other liabilities	$ 46,702	$ 40,256
Right-of-use assets obtained in exchange for new operating lease liabilities	$ 12,230	$ 6,910
Right-of-use assets obtained in exchange for new finance lease liabilities	$ 1,664	$ 1,053

See accompanying notes to condensed consolidated financial statements.

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 historically has primarily used a direct-to-home sales model. The long-term customer contracts under PPAs and Solar Leases have typically been for 20 years, but beginning in the first quarter of 2020, 25-year contracts are also being offered. These contracts 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 audited consolidated financial statements and accompanying notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 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, 2020 are not necessarily indicative of the results to be expected for the fiscal year ending December 31, 2020 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 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.

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

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' solar energy 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.

The impact of COVID-19 has resulted in changes to the capital markets, which have negatively affected the Company's liquidity position. The timing and type of funding the Company expected to obtain as part of its planned business processes has been disrupted. As a result, the Company has initiated other funding alternatives to allow the Company to continue business activities for at least the next 12 months from the date of this filing. These funding alternatives may prove to be more expensive, less favorable options than previously expected. The Company expects to obtain additional capital needed to resume growth and normal operations and provide the capital to satisfy its liquidity needs beyond one year. However, there continues to be significant uncertainty about the duration and long-term effects of COVID-19 and it is possible the effects of COVID-19 may further impact the Company's liquidity and its ability to operate as it has historically. The Company may also continue to be limited in its ability to contact customers and install new solar energy systems. There is also a risk that the Company's alternative fund-raising activities are unsuccessful.

Management has taken actions to mitigate the negative impacts of COVID-19, and to alleviate some risk to the Company's liquidity. These actions include, but are not limited to, cost reduction initiatives such as decreasing a significant portion of its workforce through furloughs and layoffs, salary reductions, temporarily closing warehouses and sales offices, eliminating expenditures, and deferring cash tax payments through the CARES Act. However, these efforts may not prove to be sufficient given the present uncertainties about the duration and severity of the COVID-19 pandemic.

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 standalone selling price that the Company would charge for these services if offered separately from the sale of the solar energy system. As of March 31, 2020 and December 31, 2019, the Company had allocated deferred revenue of $5.3 million and $4.7 million to monitoring services that will be recognized over the term of the monitoring services.

Measurement of Credit Losses on Financial Instruments

The Company adopted Accounting Standards Update ("ASU") 2016-13, *Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("Topic 326") on January 1, 2020. 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 Topic 326, the Company's accounts receivable and certain contract assets are considered financial assets measured at an amortized cost basis and will be presented at the net amount expected to be collected using this updated methodology. Utilizing the Company's historical default rate and reviewing current economic conditions, the Company estimated the allowance for credit losses that would be required. The Company applied Topic 326 through a modified retrospective approach with a cumulative-effect adjustment of approximately $0.3 million to retained earnings as of January 1, 2020. The Company evaluates its allowance for credit losses at each reporting period and adjusts as necessary in accordance with principles of Topic 326. When evaluating its allowance for credit losses as of March 31, 2020, the Company considered the impact COVID-19 will have its financial assets based on information available to the Company. For the three months ended March 31, 2020, the Company recorded additional reserves of $0.7 million related to Topic 326.

Recent Accounting Pronouncements

In March 2020, the Financial Accounting Standards Board issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting.* This update provides optional temporary expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions affected by the discontinuation of the London Interbank Offered Rate ("LIBOR") or other rates affected by reference rate reform if certain criteria are met. This ASU is effective now through December 31, 2022. The Company has long-term debt facilities and hedging instruments that are linked to LIBOR and currently anticipates using certain of the optional expedients available under this ASU. The Company is still evaluating the impact of this update on its condensed consolidated financial statements and related disclosures.

3. Fair Value Measurements

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, 2020			
	Level 1	Level 2	Level 3	Total
Financial Liabilities				
Interest rate swaps	$ —	$ 79,526	$ —	$ 79,526

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Financial Assets				
Interest rate swaps	$ —	$ 3,245	$ —	$ 3,245
Financial Liabilities				
Interest rate swaps	$ —	$ 28,070	$ —	$ 28,070

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. Financial liabilities as of March 31, 2020 include interest rate swaps for the Warehouse Facility, which are not designated as hedges, and interest rate swaps for the Solar Asset Backed Notes, Series 2018-2, which are designated as hedges. Financial assets as of December 31, 2019 included interest rate swaps for the Warehouse Facility, which are not designated as hedges. Financial liabilities as of December 31, 2019 included interest rate swaps for the Solar Asset Backed Notes, Series 2018-2, which are designated as hedges. See Note 11—Debt Obligations for additional details about these debt instruments.

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

	March 31, 2020		December 31, 2019	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Floating-rate long-term debt	$ 845,952	$ 845,952	$ 894,907	$ 894,907
Fixed-rate long-term debt	751,163	778,936	629,908	702,895
Subtotal long-term debt	1,597,115	$ 1,624,888	1,524,815	$ 1,597,802
Unamortized debt issuance costs	(24,491)		(25,154)	
Total long-term debt	$ 1,572,624		$ 1,499,661	

The Company's outstanding balance of long-term debt is carried at cost net of unamortized debt issuance costs, where applicable. See Note 11—Debt Obligations. 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, 2020	December 31, 2019
Solar energy systems held for sale	$ 13,701	$ 19,892
Photovoltaic installation products	682	684
Total inventories	$ 14,383	$ 20,576

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, 2020	December 31, 2019
System equipment costs	$ 1,994,247	$ 1,926,809
Less: Accumulated depreciation	(220,108)	(205,338)
	1,774,139	1,721,471
Solar energy system inventory	80,765	38,390
Solar energy systems, net	$ 1,854,904	$ 1,759,861

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 $14.8 million and $13.1 million for the three months ended March 31, 2020 and 2019.

6. Property and Equipment

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

	Estimated Useful Lives	March 31, 2020	December 31, 2019
Leasehold improvements	1-12 years	$ 12,048	$ 10,458
Vehicles acquired under finance leases	3-4 years	11,622	10,280
Furniture and computer and other equipment	3-5 years	6,149	5,021
		29,819	25,759
Less: Accumulated depreciation and amortization		(8,931)	(8,259)
Property and equipment, net		$ 20,888	$ 17,500

The Company recorded depreciation and amortization expense related to property and equipment of $1.2 million and $0.1 million for the three months ended March 31, 2020 and 2019.

7. Other Non-Current Assets

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

	March 31, 2020	December 31, 2019
Costs to obtain contracts	$ 668,604	$ 615,385
Accumulated amortization of costs to obtain contracts	(75,739)	(70,170)
Operating lease right-of-use assets	48,986	39,118
Sales incentives	10,112	10,008
Debt issuance costs	9,049	9,936
Prepaid insurance	6,174	6,541
Solar Lease straight-line asset	5,844	5,722
Advances receivable from sales professionals	5,541	6,395
Prepaid inventory	—	50,104
Other non-current assets	4,441	7,023
Total other non-current assets	$ 683,012	$ 680,062

The Company recorded amortization of costs to obtain contracts of $5.6 million and $3.9 million for the three months ended March 31, 2020 and 2019. Costs to obtain contracts are amortized over the initial terms of customer contracts, which are either 20 years or 25 years.

8. Intangible Assets

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

	March 31, 2020	December 31, 2019
Cost:		
Internal-use software	$ 2,825	$ 2,596
Developed technology	522	522
Trademarks/trade names	201	201
Total carrying value	3,548	3,319
Accumulated amortization:		
Internal-use software	(253)	(105)
Developed technology	(404)	(393)
Trademarks/trade names	(123)	(119)
Total accumulated amortization	(780)	(617)
Total intangible assets, net	$ 2,768	$ 2,702

The Company recorded $0.2 million and $0.1 million of amortization expense for the three months ended March 31, 2020 and 2019, 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, 2020	December 31, 2019
Accrued payroll	$ 14,395	$ 18,633
Accrued commissions	14,497	15,516
Total accrued compensation	$ 28,892	$ 34,149

10. Accrued and Other Current Liabilities

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

	March 31, 2020	December 31, 2019
Accrued unused commitment fees and interest	$ 18,347	$ 16,995
Litigation Settlement	11,622	12,780
Current portion of operating lease liabilities	8,886	8,436
Accrued workers' compensation	7,803	7,166
Accrued professional fees	6,479	5,546
Current portion of lease pass-through financing obligation	4,764	5,147
Workmanship accrual	4,239	4,217
Sales, use and property taxes payable	3,528	4,321
External customer experience services	1,488	1,984
Accrued Inventory	163	4,667
Other accrued expenses	5,091	7,280
Total accrued and other current liabilities	$ 72,410	$ 78,539

11. Debt Obligations

Debt obligations consisted of the following as of March 31, 2020 (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)	$ 448,277	$ (68)	$ (8,220)	$ 5,588	$ 434,401	$ —	5.1%	October 2028
Solar asset backed notes, Series 2018-2(2)(3)	336,766	(5)	(5,806)	295	330,660	—	5.0	August 2023
2017 Term loan facility	177,437	(153)	(4,214)	6,568	166,502	—	6.0	January 2035
2018 Forward flow loan facility	124,188	(94)	(3,031)	3,660	117,403	—	4.7	November 2039
2019 Forward flow loan facility	115,186	(7)	(2,805)	268	112,106	34,814	4.7	(4)
Credit agreement	1,261	(1)	(87)	17	1,156	—	6.5	February 2023
Revolving lines of credit(5)								
Warehouse facility	280,000	—	—	—	280,000	45,000	4.3	August 2023
Asset Financing Facility(6)	114,000	—	—	8,000	106,000	66,362	4.5	June 2023
Total debt	$ 1,597,115	$ (328)	$ (24,163)	$ 24,396	$ 1,548,228	$ 146,176		

Debt obligations consisted of the following as of December 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)	$ 448,277	$ (69)	$ (8,414)	$ 3,639	$ 436,155	$ —	5.1%	October 2028
Solar asset backed notes, Series 2018-2(2)(3)	338,294	(5)	(6,133)	1,245	330,911	—	5.5	August 2023
2017 Term loan facility	180,365	(164)	(4,235)	7,882	168,084	—	6.0	January 2035
2018 Forward flow loan facility	124,800	(99)	(3,083)	3,622	117,996	—	4.7	November 2039
2019 Forward flow loan facility	82,813	—	(2,857)	—	79,956	67,187	4.7	(4)
Credit agreement	1,266	(2)	(93)	17	1,154	—	6.5	February 2023
Revolving lines of credit(5)								
Warehouse facility	250,000	—	—	—	250,000	75,000	4.3	August 2023
Asset Financing Facility(6)	99,000	—	—	—	99,000	81,362	5.2	June 2023
Total debt	$ 1,524,815	$ (339)	$ (24,815)	$ 16,405	$ 1,483,256	$ 223,549		

(1) The interest rate disclosed in the table above is a weighted-average rate. The Series 2018-1 Notes are composed 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 composed 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 these notes is partially hedged to an effective interest rate of 6.0% for $322.1 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 November 20, 2020.

(5) Revolving lines of credit are not presented net of unamortized debt issuance costs.

(6) This 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 its 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, 2020.

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, 2020, the Company had $16.4 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 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, 2020, the Company had $28.1 million in required reserves outstanding in collateral accounts with the administrative agent, which are included in restricted cash and cash equivalents.

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, 2020, the Company had $20.6 million in required reserves outstanding in collateral accounts with the administrative agent, which were included in restricted cash and cash equivalents.

2018 Forward Flow Loan Facility

In August 2018, a subsidiary that is indirectly owned by the Company together with investors, entered into a loan agreement (the “2018 Forward Flow Loan Facility”) pursuant to which the Company borrowed an aggregate principal amount of $124.8 million. The Company was permitted to make multiple borrowings under the 2018 Forward Flow Loan Facility during the availability period. In November 2019, all outstanding loans under the 2018 Forward Flow Facility were aggregated into a single term loan with a maturity date of November 20, 2039. Interest on the aggregated term loan accrues at an annual fixed rate of 4.7%. The interest rate of the aggregated term loan is a blended rate based on weighted draws during the availability period. 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, 2020, the Company had $6.5 million in required reserves outstanding in collateral accounts with the administrative agent, which were included in restricted cash and cash equivalents.

2019 Forward Flow Loan Facility

In May 2019, a subsidiary that is indirectly owned by the Company together with investors, entered into a loan agreement (the "2019 Forward Flow Loan Facility") pursuant to which the Company may borrow up to an aggregate principal amount of $150.0 million. The Company may make multiple borrowings under the 2019 Forward Flow Loan Facility during the availability period, which will continue no later than November 20, 2020. After the availability period, all outstanding loans under the 2019 Forward Flow Loan Facility will be aggregated into a single term loan with a maturity date 20 years after the date of aggregation. On any anniversary of the date of aggregation occurring from and after the sixth such anniversary, upon notice to the lenders, the Company may borrow additional loans under the 2019 Forward Flow Loan Facility if the Company is projected to have sufficient net cash flow to service such additional debt. If any lender declines to fund such additional loans, the Company will have the right to prepay outstanding loans from such lender in an amount equal to 102.5% of such loans, plus accrued and unpaid interest, without any make-whole amount. Interest on each loan will accrue at an annual rate equal to the greater of (a) 4.70% and (b) the U.S. Treasury rate for the weighted-average life of such loan, plus an applicable margin equal to 2.35%. 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, 2020, the Company had $3.2 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%.

Warehouse Facility

In August 2019, a wholly owned subsidiary of the Company entered into a floating rate revolving warehouse facility (the "Warehouse Facility") pursuant to which it may borrow up to an aggregate principal amount of $325.0 million, expandable up to $400.0 million, from certain financial institutions for which Bank of America, N.A. is acting as administrative agent and collateral agent. During the period in which the Company may make borrowings under the Warehouse Facility, which is currently anticipated to continue until August 2022, interest on borrowings accrues at an annual rate equal to the applicable adjusted LIBOR rate plus 2.375%. Thereafter, interest will accrue at an annual rate equal to the applicable adjusted LIBOR rate plus 3.375%. In addition, the Company is required to maintain interest rate hedging arrangements such that not less than 90% of the aggregate expected amortization profile of all outstanding revolving advances is subject to a fixed interest rate or other interest rate protection. Initially, subject to the terms of the Warehouse Facility, only interest payments are due on a quarterly basis, through the availability period, and then certain principal and interest payments may be due. These payments will occur on the 15^{th} of January, April, July and October of each year, subject to the occurrence of certain events, including a borrowing base deficiency and dispositions with respect to any of the collateral. Principal and interest payable under the Warehouse Facility mature in four years and optional prepayments, in whole or in part, are permitted under the Warehouse Facility no more than once per month, without premium or penalty apart from any customary LIBOR breakage provisions. As of March 31, 2020, the Company had $6.9 million in required reserves outstanding in collateral accounts with the administrative agent, which were included in restricted cash and cash equivalents.

Asset Financing Facility

In December 2019, a wholly owned subsidiary of the Company entered into a loan and security agreement (the "Asset Financing Facility") with certain financial institutions for which Bank of America, N.A. is acting as administrative agent and collateral agent, under which the Company may incur up to an aggregate principal amount of $200.0 million in revolver borrowings. The Asset Financing Facility matures in June 2023. In addition to the outstanding borrowings as of December 31, 2019, the Company had established letters of credit under the Asset Financing Facility for up to $19.6 million related to insurance and retail contracts. Borrowings under the Asset Financing Facility may be designated as base rate loans or LIBOR loans, subject to certain terms and conditions. Base rate loans accrue interest at a rate per year equal to 2.25% plus the highest of (i) the federal funds rate plus 0.5%, (ii) Bank of America, N.A.'s published "prime rate," and (iii) LIBOR rate plus 1.0%, subject to a 0.0% floor. LIBOR loans accrue interest at a rate per annum equal to 3.25% plus the fluctuating rate of interest equal to LIBOR or a comparable successor rate approved by the administrative agent, subject to a 0.0% floor. In addition to customary covenants for this type of facility, the Company is subject to a financial covenant and is required to have unencumbered cash and cash equivalents at the end of each fiscal quarter of at least the greater of (i) $30.0 million and (ii) the amount of unencumbered liquidity to be maintained by the Company in accordance with any loan documents governing its recourse debt facilities. As of March 31, 2020, the Company was in compliance with such covenants. Additionally, as of March 31, 2020, the Company had $2.8 million in required reserves outstanding in collateral accounts with the administrative agent, which were included in restricted cash and cash equivalents.

12. Leases

The Company is the lessee in 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 judgements 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):

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019
Lease cost		
Finance lease cost:		
Amortization of right-of-use assets	$ 714	$ 294
Interest on lease liabilities	153	26
Operating lease cost	3,393	2,770
Short-term lease cost	364	722
Total lease cost	$ 4,624	$ 3,812
Other information		
Finance leases:		
Operating cash outflows from finance leases	$ 153	$ 26
Financing cash outflows from finance leases	$ 1,196	$ 271
Right-of-use assets obtained in exchange for new finance lease liabilities	$ 1,664	$ 1,053
Weighted-average remaining lease term - finance leases (in years)	3.4	2.9
Weighted-average discount rate - finance leases	7.0%	7.8%
Operating leases:		
Operating cash outflows from operating leases	$ 3,341	$ 2,826
Right-of-use assets obtained in exchange for new operating lease liabilities	$ 12,230	$ 6,910
Weighted-average remaining lease term - operating leases (in years)	8.9	9.6
Weighted-average discount rate - operating leases	7.4%	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 four 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, 2020 were as follows (in thousands):

2020	$ 2,532
2021	2,949
2022	2,823
2023	1,846
2024	84
Thereafter	—
Total minimum lease payments	10,234
Less: interest	1,068
Present value of finance lease obligations	9,166
Less: current portion	2,497
Long-term portion	$ 6,669

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 operating lease agreements typically include options to extend the lease term and typically 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 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, 2020 were as follows (in thousands):

2020	$	9,858
2021		10,963
2022		8,532
2023		7,031
2024		6,822
Thereafter		39,374
Total minimum lease payments		82,580
Less: present value impact		23,163
Present value of operating lease obligations		59,417
Less: current portion		8,886
Long-term portion	$	50,531

13. Derivative Financial Instruments

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

	March 31, 2020		
	Fair Value		Balance Sheet Location
Derivatives designated as hedging instruments:			
Interest rate swaps	$	54,413	Other non-current liabilities
Derivatives not designated as hedging instruments:			
Interest rate swaps	$	25,113	Other non-current liabilities

	December 31, 2019		
	Fair Value		Balance Sheet Location
Derivatives designated as hedging instruments:			
Interest rate swaps	$	28,070	Other non-current liabilities
Derivatives not designated as hedging instruments:			
Interest rate swaps	$	3,245	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 Warehouse Facility, the Company is required to maintain interest rate swaps such that not less than 90% of the aggregate expected amortization profile of all outstanding revolving advances is subject to a fixed interest rate. The Company is required to meet this threshold within five business days after the end of each quarterly period. As of March 31, 2020, the Company had entered into interest rate swaps with an aggregate notional amount of approximately $225.0 million. The Company entered into additional interest rate swaps within five business days of quarter end with an aggregate notional amount of approximately $27.0 million. The Company did not designate these interest rate swaps as hedge instruments and accounts for any changes in fair value in other expense, 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, 2020, the notional amount of these interest rate swaps was $322.1 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 $7.7 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 on derivatives designated as cash flow hedges recognized in OCI, before tax effect, consisted of the following (in thousands):

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019
Derivatives designated as cash flow hedges:		
Interest rate swaps	$ 27,237	$ 6,600

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

	Three Months Ended March 31,			
	2020		2019	
	Interest expense, net	Other expense, net	Interest expense, net	Other expense, net
Total amounts presented in the income statement line items	$ 21,632	$ 28,358	$ 19,127	$ 1,385
Derivatives designated as cash flow hedges:				
Interest rate swaps				
Losses reclassified from AOCI into income	$ 894	$ —	$ 322	$ —
Derivatives not designated as hedging instruments:				
Interest rate swaps				
Losses recognized in income	—	28,358	—	1,384
Total losses	$ 894	$ 28,358	$ 322	$ 1,384

14. Investment Funds

The Company has formed investment funds for the purpose of funding the purchase of solar energy systems under long-term customer contracts. As of March 31, 2020 and December 31, 2019, 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, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 59,494	$ 82,764
Accounts receivable, net	15,971	8,922
Prepaid expenses and other current assets	1,444	1,676
Total current assets	76,909	93,362
Restricted cash and cash equivalents	9,666	8,890
Solar energy systems, net	1,645,537	1,587,354
Other non-current assets, net	555,625	504,668
Total assets	$ 2,287,737	$ 2,194,274
Liabilities		
Current liabilities:		
Accounts Payable	$ 13	$ —
Distributions payable to non-controlling interests and redeemable non-controlling interests	7,474	10,253
Current portion of long-term debt	3,927	3,622
Current portion of deferred revenue	2,166	2,590
Accrued and other current liabilities	6,372	6,394
Total current liabilities	19,952	22,859
Long-term debt, net of current portion	229,509	197,952
Deferred revenue, net of current portion	14,544	12,242
Other non-current liabilities	576	301
Total liabilities	$ 264,581	$ 233,354

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, 2020 and December 31, 2019, the cumulative total of contributions into the VIEs by all investors was $2,035.5 million and $1,949.7 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 $43.4 million and $43.8 million as of March 31, 2020 and December 31, 2019.

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, 2020 and December 31, 2019, the Company had recorded financing liabilities of $4.6 million in each period related to this fund arrangement, which was 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, 2020, 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 $7.7 million and $8.1 million as of March 31, 2020 and December 31, 2019.

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. Distributions paid to reimburse fund investors totaled $1.1 million during the three months ended March 31, 2020. As of March 31, 2020, 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, 2020 and December 31, 2019, 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, 2020	December 31, 2019
Shares available for grant under equity incentive plans	18,157	13,060
Restricted stock units issued and outstanding	5,466	6,271
Stock options issued and outstanding	4,436	5,421
Long-term incentive plan	2,706	2,706
Total	30,765	27,458

Redeemable Non-Controlling Interests and Non-Controlling Interests

Eight 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 eight 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 eight 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, 2020, a total of 18.2 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 4.9 million shares became available to grant in January 2020 under the 2014 Plan.

Stock Options

Stock Option Activity

Stock option activity for the three months ended March 31, 2020 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, 2019	5,421	$ 4.21		$ 17,073
Granted	—	—		
Exercised	(961)	1.50		
Cancelled	(24)	6.25		
Outstanding—March 31, 2020	4,436	$ 4.79	8.2	$ 2,250
Options vested and exercisable—March 31, 2020	1,427	$ 3.79	7.1	$ 1,497

RSUs

RSU activity for the three months ended March 31, 2020 was as follows (awards in thousands):

	Number of Awards	Weighted-Average Grant Date Fair Value
Outstanding at December 31, 2019	6,271	$ 4.85
Granted	6	6.72
Vested	(654)	3.91
Forfeited	(157)	4.91
Outstanding at March 31, 2020	5,466	$ 4.97

Stock-Based Compensation Expense

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

	Three Months Ended March 31,	
	2020	2019
Cost of revenue	$ 368	$ 332
Sales and marketing	956	735
General and administrative	2,583	2,584
Research and development	32	28
Total stock-based compensation	$ 3,939	$ 3,679

Unrecognized stock-based compensation expense for RSUs and stock options as of March 31, 2020 was as follows (in thousands, except years):

	Unrecognized Stock-Based Compensation Expense	Weighted-Average Period of Recognition (in years)
RSUs	$ 15,112	1.6
Stock options	5,920	1.8
Total unrecognized stock-based compensation expense	$ 21,032	

17. Income Taxes

The income tax expense for the three months ended March 31, 2020 and 2019 was calculated on a discrete basis resulting in a consolidated quarterly effective income tax rate of (23.0)% and (44.5)%. The variations between the consolidated effective income tax rate and the U.S. federal statutory rate for the three months ended March 31, 2020 and 2019 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. Additionally, the consolidated effective income tax rate for the three months ended March 31, 2020 reflects the benefit from the net operating loss carryback provisions pursuant to the CARES Act.

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, both current and deferred, as a component of income tax expense during the period in which the transfers occur. The Company recognizes income tax effects directly to continuing operations and AOCI pursuant to applicable intraperiod allocation rules. The Company's policy is to release income tax effects from AOCI using an item-by-item approach when the circumstances upon which they are premised cease to exist.

18. Related Party Transactions

The Company's condensed consolidated statements of operations included related party transactions of $0.3 million and $0.8 million within sales and marketing for the three months ended March 31, 2020 and 2019.

Vivint Services

The Company has a number of agreements with its sister company, Vivint Smart Home, Inc. ("Vivint"). The Company has 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 will continue to automatically renew unless written notice of termination is provided by one of the parties to the other. The Company and Vivint have also agreed to non-solicitation provisions under a recruiting services agreement that matches the term of the sales dealer agreement.

The Company made payments under agreements with Vivint of $1.7 million and $2.4 million for the three months ended March 31, 2020 and 2019. These amounts reflect the level of services provided by Vivint on behalf of the Company.

Under agreements with Vivint, the Company recorded payable balances to Vivint of $0.8 million and $2.2 million in accounts payable as of March 31, 2020 and December 31, 2019.

Advances Receivable—Related Party

Net amounts due from direct-sales professionals were $5.7 million and $6.6 million as of March 31, 2020 and December 31, 2019. The Company provided a reserve of $0.5 million and $0.4 million as of March 31, 2020 and December 31, 2019 related to advances to direct-sales professionals 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 $1.2 million and $1.4 million as of March 31, 2020 and December 31, 2019, included in distributions payable to non-controlling and redeemable non-controlling interests. See Note 14—Investment Funds.

19. Commitments and Contingencies

Letters of Credit

As of March 31, 2020, the Company had established letters of credit under the Asset Financing Facility for up to $19.6 million related to insurance and retail contracts.

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 professionals on a deferred basis. The amount deferred is based on the value of the system sold by the sales professional and payment is based on the sales professional 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 professional remain in the Company's service. As a result, the amount that is earned over time is expensed by the Company over the deferment period. In the second quarter of 2019, this plan was changed such that no new accounts were added to this deferred payment plan. As of March 31, 2020, 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 deferment period was $2.5 million.

Legal Proceedings and Regulatory Matters

In February 2018, two former employees, on behalf of themselves and other direct sellers, named the Company in a putative class and Private Attorneys General Act action in San Diego County Superior Court, California, 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. On October 7, 2019, the Company entered into a class action settlement agreement, pursuant to which the Company has agreed to pay $7.25 million to settle the claims in the lawsuit, which was accrued by the Company in general and administrative expense in the third quarter of 2019. The settlement is subject to court approval. On December 6, 2019, the court granted preliminary approval of the settlement. The final settlement approval hearing is currently scheduled for May 22, 2020.

In March 2018, the New Mexico Attorney General's office filed an action against the Company and several of its officers in New Mexico State Court, 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. In August 2019, the Company reached a settlement in principle to resolve the class action on a nationwide basis for a payment of approximately $1.0 million (including plaintiff's attorneys' fees), which was accrued by the Company in general and administrative expense in the third quarter of 2019. On November 8, 2019, the court granted preliminary approval of the settlement. The final settlement approval hearing is scheduled for May 12, 2020.

In October 2018, a former employee filed a representative action in Sacramento County Superior Court, California, 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 professional filed a representative action in Orange County Superior Court, California, 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. In November 2019, the parties entered into an agreement pursuant to which the plaintiff agreed that the resolution of the February 2018 class action referenced above would resolve all of the claims in this action.

In June 2019, a former sales professional filed a representative action in San Diego County Superior Court, California, 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 resolution of the February 2018 class action referenced above is expected to resolve the representative claims pursuant to California's Private Attorneys General Act.

In October 2019, two separate, purported stockholders filed separate putative class actions in the U.S. District Court for the Eastern District of New York purportedly on behalf of themselves and all others similarly situated. The lawsuits allege violations of federal securities laws and seek unspecified compensatory damages, attorneys' fees and costs. In March 2020, the court consolidated the two actions and appointed lead plaintiffs and lead counsel to represent the putative class. The Company expects that the court-appointed lead plaintiffs will file an amended and consolidated complaint in the action. The Company will respond to the amended and consolidated complaint, and it reserves all of its rights and objections with regard to jurisdictional challenges and venue as well as any other objections and motions related to the amended and consolidated complaint. The Company disputes the plaintiffs' allegations 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 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 December 2019, ten customers who signed residential power purchase agreements named the Company in a putative class action lawsuit in the U.S. District Court for the Northern District of California alleging that the agreements contain unlawful termination fee provisions. In March 2020, the court issued an order compelling eight of the plaintiffs to arbitrate their claims. 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 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 December 2019, two former installers filed a putative class action wage and hour lawsuit against the Company in the U.S. District Court for the Central District of California. In February 2020, the two installers filed a First Amended Complaint, which added a Private Attorneys General Act ("PAGA") claim. In March 2020, the plaintiffs dismissed their class and PAGA claims with prejudice and opted to proceed with binding arbitration on their individual claims only.

In December 2019, a former installer filed a representative action in San Diego Superior Court, California, asserting various wage and hour claims. 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 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 January 2020, the Company entered into a settlement agreement called an Assurance of Discontinuance ("Settlement") with the New York Attorney General ("NYAG"). The Settlement requires that the Company adopt certain changes to its sales and marketing practices in New York and pay approximately $2.0 million to the State of New York in three payments. The Company accrued this amount in its financial statements as of December 31, 2019, and already paid $1.0 million in January 2020. The Settlement required that the Company notify New York customers about the Settlement and their potential rights under it, including the potential rights to have the Company remove their system, leave their property in a watertight condition, cancel contracts, and refund amounts paid, and/or to repair property damage. The NYAG will be the final arbiter of any disputes as to the consumer's eligibility for relief. The Company has accrued another $2.0 million for this potential liability in general and administrative expenses for the period ending December 31, 2019, which represents the Company's current best estimate of potential loss. Future adjustments to the Company's current accrual, which currently cannot be estimated, could adversely impact the Company's operating results in the period(s) in which any such adjustments are made. Actual expenses may deviate materially from the Company's estimate.

In March 2020, a shareholder filed a derivative action against various officers and directors of the Company in the Delaware Chancery Court, alleging that they breached their duties of loyalty, care, and good faith. The Company is named as a nominal defendant. The defendants dispute the allegations in the complaint and have retained counsel to represent them in the litigation. The Company was served with the complaint in April 2020. The Company is unable to estimate a range of loss, if any, at this time. 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 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 currently 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 the three months ended March 31, 2020 and 2019 (in thousands, except per share amounts):

	Three Months Ended March 31,	
	2020	2019
Numerator:		
Net loss attributable to common stockholders	$ (40,260)	$ (26,242)
Denominator:		
Shares used in computing net loss attributable per share to common stockholders, basic and diluted	123,922	120,307
Net loss attributable per share to common stockholders:		
Basic and diluted	$ (0.32)	$ (0.22)

For all periods presented, the Company incurred net losses attributable to common stockholders. As such, the effect of the Company's outstanding stock options and restricted stock units were not included in the calculations of diluted net loss attributable per share to common stockholders as the effect would have been anti-dilutive. The following table contains share totals with a potentially dilutive impact (in thousands):

	Three Months Ended March 31,	
	2020	2019
Restricted stock units	5,466	6,809
Stock options	4,436	5,041
Total	9,902	11,850

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, or the Exchange Act. 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:

- the duration and severity of the COVID-19 pandemic;
- the success of our plans to mitigate the negative economic impacts of COVID-19;
- 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;
- 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 Smart Home, 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, regulatory investigations 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

Our business operations have experienced significant disruptions due to the unprecedented conditions surrounding COVID-19 in the United States, which has required us to modify our business practices. Since March, we have been following the recommendations of state and local health authorities to minimize the exposure risk for team members and customers, including restricting access to our physical offices. Our direct-to-home sales professionals have had to quickly adapt to remote sales practices in response to government restrictions on our activities. As a result of these conditions related to COVID-19, we are currently experiencing a lower level of solar energy system installations compared to recent quarters, although the effects of these lower installation volumes may not be immediately apparent in our condensed consolidated financial statements. The timing and extent to which solar energy installations will remain lower depends on when and to what extent government restrictions related to COVID-19 are relaxed and how our business practices may change as a result of long-term shifts in consumer behavior resulting from the COVID-19 pandemic.

Management has devoted significant time and attention to assessing the potential impact of COVID-19 and related events on our operations and financial position and has developed operational and financial plans to address those matters. We have taken many actions, including, but not limited to, having employees work from home where possible, practicing social distancing in all aspects of our business, reducing our workforce, reducing compensation, temporarily closing warehouses and sales offices, and eliminating expenditures. As a result of these actions, we are currently seeing our expense structure decreasing. The timing and extent to which our expense structure will remain lower depends on when these actions are lifted, when and to what extent government restrictions related to COVID-19 are relaxed, and how our business practices may change as a result of long-term shifts in consumer behavior resulting from the COVID-19 pandemic.

There is no certainty that such measures will be sufficient to mitigate the risks posed by the pandemic, and our ability to perform certain functions could be negatively impacted. While the potential impact and duration of the COVID-19 pandemic on the U.S. economy and our industry in particular are difficult to assess or predict, the pandemic has resulted in changes to the capital markets, which have negatively affected the timing and type of funding we expected to obtain as part of our planned business processes and which may further reduce or delay our ability to access capital and negatively affect our liquidity and results of operations. In addition, a recession or further financial market correction resulting from the spread of COVID-19 could adversely affect demand for our products, reduce or delay our ability to install our products, impact our supply chain, including the pricing, timing and availability of equipment, or cause a decrease in collections from our customers, among other negative impacts. These events could cause a material adverse effect on our financial position, liquidity, and results of operations. As a result of this uncertainty, it is difficult for us to provide forward-looking statements.

We offer distributed solar energy — electricity generated by a solar energy system installed at or near customers' locations — to residential customers. Historically, we have primarily offered our products through a customer-focused and neighborhood-driven direct-to-home sales model. During the COVID-19 pandemic we have been following the recommendations of state and local health authorities to minimize the exposure risk for team members and customers, which has required our direct-to-home sales force to quickly adapt to remote sales practices. 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. We also offer PPAs that include battery storage systems. PPAs have a term of either 20 or 25 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 have a term of either 20 or 25 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 56.1 megawatts installed in the three months ended March 31, 2020, approximately 63% were installed under PPAs, 25% were installed under Solar Leases and 12% were installed under System Sales. 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, composed 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 declined for construction purposes beginning in 2020. If such reductions continue as scheduled, our ability to obtain tax equity financing 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 ITC is 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. We expect solar energy installations to be adversely affected by the COVID-19 related restrictions on our business and consumer behavior.
- *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. We expect megawatts installed to be adversely affected by the COVID-19 related restrictions on our business and consumer behavior.
- *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*. 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 solar renewable energy certificates, or 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 under energy contracts*. Estimated gross retained value under energy contracts represents the estimated retained value from the solar energy systems during the 20-year or 25-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 5-year or 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 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, 2020	Three Months Ended March 31, 2019
Solar energy system installations	8,238	6,514
Megawatts installed	56.1	45.6

	March 31, 2020	December 31, 2019
Cumulative solar energy system installations	196,529	188,291
Cumulative megawatts installed	1,350.1	1,294.0
Estimated nominal contracted payments remaining (in millions)	$ 4,636.6	$ 4,434.0
Estimated gross retained value under energy contracts (in millions)	$ 1,747.7	$ 1,690.0
Estimated gross retained value of renewal (in millions)	$ 630.6	$ 600.7
Estimated gross retained value (in millions)	$ 2,378.3	$ 2,290.7
Estimated gross retained value per watt	$ 1.97	$ 1.98

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. In addition, COVID-19 has impacted our ability to sell and install solar energy systems. If government restrictions on our activities continue for an extended period of time, are reimposed after being lifted or if customer receptivity to our products and sales channels changes as a result of COVID-19, we may not experience the seasonal strength as in historical periods.

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, 2020, we adopted Accounting Standards Update 2016-13, *Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, or Topic 326. 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 Topic 326, our accounts receivable and certain contract assets are considered financial assets measured at an amortized cost basis and will be presented at the net amount expected to be collected using this updated methodology. Utilizing our historical default rate and reviewing current economic conditions, we estimated the allowance for credit losses that would be required. We applied Topic 326 through a modified retrospective approach with a cumulative-effect adjustment of approximately $0.3 million to retained earnings as of January 1, 2020. We evaluate our allowance for credit losses at each reporting period and adjust as necessary in accordance with principles of Topic 326. When evaluating our allowance for credit losses as of March 31, 2020, we considered the impact COVID-19 will have on our financial assets based on information available to us. For the three months ended March 31, 2020, we recorded additional reserves of $0.7 million related to Topic 326.

There have been no other material changes to our critical accounting policies and estimates during the three months ended March 31, 2020 from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2019.

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 includes revenue from System Sales. Revenue from 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 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,	
	2020	2019
Revenue:		
Customer agreements and other incentives	$ 38,783	$ 30,208
SREC sales	12,493	9,395
Total customer agreements and incentives	51,276	39,603
System Sales	38,992	29,299
Photovoltaic installation products	883	469
Total solar energy system and product sales	39,875	29,768
Total revenue	$ 91,151	$ 69,371

Operating Expenses

We have taken a number of cost reduction initiatives, including decreasing a significant portion of our workforce through furloughs and layoffs, salary reductions, and temporarily closing warehouses and sales offices. However, these efforts may not prove to be successful given the present uncertainties about the duration and severity of the COVID-19 pandemic. In addition, if we are not able to hire, or rehire, our workforce in a timely way as COVID-19 restrictions are loosened and are unable to meet the demand for our solar energy systems, our future operating results and prospects may be adversely affected.

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. 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 that are paid in connection with certain SREC transactions.

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. 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.

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 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.

Research and Development. Research and development expense is composed 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.

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.

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 2020, we expect our interest expense to increase in absolute dollars compared to 2019 as we have incurred additional indebtedness.

Other Expense, net. Other expense, 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, 2020, 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,	
	2020	2019
	(In thousands)	
Revenue:		
Customer agreements and incentives	$ 51,276	$ 39,603
Solar energy system and product sales	39,875	29,768
Total revenue	91,151	69,371
Cost of revenue:		
Cost of revenue—customer agreements and incentives	52,823	40,191
Cost of revenue—solar energy system and product sales	22,048	17,263
Total cost of revenue	74,871	57,454
Gross profit	16,280	11,917
Operating expenses:		
Sales and marketing	39,608	29,634
Research and development	556	469
General and administrative	28,026	23,049
Total operating expenses	68,190	53,152
Loss from operations	(51,910)	(41,235)
Interest expense, net	21,632	19,127
Other expense, net	28,358	1,385
Loss before income taxes	(101,900)	(61,747)
Income tax expense	23,414	27,487
Net loss	(125,314)	(89,234)
Net loss attributable to non-controlling interests and redeemable non-controlling interests	(85,054)	(62,992)
Net loss attributable to common stockholders	$ (40,260)	$ (26,242)

Comparison of Three Months Ended March 31, 2020 and 2019

Revenue

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019	$ Change 2020 from 2019
		(In thousands)	
Revenue:			
Customer agreements and incentives	$ 51,276	$ 39,603	$ 11,673
Solar energy system and product sales	39,875	29,768	10,107
Total revenue	$ 91,151	$ 69,371	$ 21,780

Customer Agreements and Incentives. The $11.7 million increase was due in part to a $8.3 million increase in customer agreements revenue as the total megawatts of solar energy systems in service under these long-term customer contracts increased 22% compared to the same period in 2019 and a $3.1 million increase in SREC revenue.

Solar Energy System and Product Sales. The $10.1 million increase was primarily due to an increase in solar energy systems placed in service under System Sales compared to the same period in 2019, primarily resulting from the high level of installations that occurred in the fourth quarter of 2019 as customers took advantage of the 30% ITC before it was reduced to 26% in 2020.

Cost of Revenue

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019	$ Change 2020 from 2019
		(In thousands)	
Cost of revenue:			
Cost of revenue—customer agreements and incentives	$ 52,823	$ 40,191	$ 12,632
Cost of revenue—solar energy system and product sales	22,048	17,263	4,785
Total cost of revenue	$ 74,871	$ 57,454	$ 17,417

Cost of Revenue—Customer Agreements and Incentives. The $12.6 million increase was due in part to a $3.4 million increase in non-capitalized compensation and benefits for the installation organization driven by an increased headcount during the majority of the quarter to accommodate greater installation volumes compared to the same period in 2019, although headcount was significantly reduced by the end of the quarter as we responded to the economic impacts of the COVID-19 pandemic. The increase was also driven by a $2.2 million increase in other non-capitalized operational costs such as permitting and other filing and incentive fees related to installation volume growth, a $1.7 million increase in depreciation of solar energy system equipment costs due to the increase in the number of solar energy systems in service, a $1.4 million increase in costs related to system removals in the current period compared to the same period in 2019 due primarily to additional customer buyouts of solar energy systems, a $1.3 million increase related to growth in the post-installation maintenance organization to accommodate the increase in the number of solar energy systems in service, and a $1.2 million increase in costs related to systems that are temporarily removed to accommodate structural upgrades.

Cost of Revenue—Solar Energy System and Product Sales. The $4.8 million increase reflects the increase in solar energy systems placed in service under System Sales compared to the same period in 2019, primarily resulting from the high level of installations that occurred in the fourth quarter of 2019 as customers took advantage of the 30% ITC before it was reduced to 26% in 2020.

Operating Expenses

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019	$ Change 2020 from 2019
		(In thousands)	
Operating expenses:			
Sales and marketing	$ 39,608	$ 29,634	$ 9,974
Research and development	556	469	87
General and administrative	28,026	23,049	4,977
Total operating expenses	$ 68,190	$ 53,152	$ 15,038

Sales and Marketing. The $10.0 million increase was primarily due to a $7.6 million increase in costs to obtain contracts related to System Sales and amortization of previously capitalized costs to obtain contracts resulting from increased solar energy systems in service compared to the same period in 2019, and a $1.3 million increase in professional fees related to our retail sales channel.

General and Administrative. The $5.0 million increase was primarily due to a $2.0 million increase in compensation and benefits, a $1.3 million increase in professional fees and a $0.8 million increase in other administrative costs which is primarily composed of accounting charges related to Topic 326 to adjust accounts receivable for a decline in general economic conditions at the end of the quarter resulting from the COVID-19 pandemic.

Non-Operating Expenses

	Three Months Ended March 31,		$ Change
	2020	**2019**	**2020 from 2019**
		(In thousands)	
Interest expense, net	$ 21,632	$ 19,127	$ 2,505
Other expense, net	28,358	1,385	26,973

Interest Expense, net. Interest expense increased $2.5 million primarily due to additional borrowings year over year.

Other Expense, net. The $27.0 million increase in other expense was primarily due to changes in the fair value of our derivative financial instruments.

Income Taxes

	Three Months Ended March 31,		$ Change
	2020	**2019**	**2020 from 2019**
		(In thousands)	
Income tax expense	$ 23,414	$ 27,487	$ (4,073)

The $4.1 million decrease in income tax expense was primarily attributable to $5.3 million of benefit from the net operating loss carryback provisions pursuant to the CARES Act, a tax-effected $4.1 million increased loss before income taxes, and a $2.0 million increased equity compensation windfall. These decreases in income tax expense were partially offset by $4.6 million associated with the net tax effect of non-controlling interests and redeemable non-controlling interests and $2.7 million of additional expense as a result of increased tax gains recognized on the sale of solar energy systems to investment funds.

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

	Three Months Ended March 31,		$ Change
	2020	**2019**	**2020 from 2019**
		(In thousands)	
Net loss attributable to non-controlling interests and redeemable non-controlling interests	$ (85,054)	$ (62,992)	$ (22,062)

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.

Liquidity and Capital Resources

As of March 31, 2020, we had cash and cash equivalents of $131.1 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. 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.

As of the date of this filing, we will require additional sources of cash beyond current cash balances and currently available financing facilities to fund long-term planned growth. If we are unable to secure additional financing when needed, or upon desirable terms, we may be unable to finance installation of customers' solar energy systems in a manner consistent with past performance, cost of capital could increase, or we may be required to significantly reduce the scope of operations, any of which would have a material adverse effect on our business, financial condition, results of operations and prospects.

The impact of COVID-19 has resulted in changes to the capital markets, which have negatively affected our liquidity position. The timing and type of funding we expected to obtain as part of our planned business processes has been disrupted. As a result, we have initiated other funding alternatives to allow us to continue business activities for at least the next 12 months from the date of this filing. These funding alternatives may prove to be more expensive, less favorable options than previously expected. We expect to obtain additional capital needed to resume growth and normal operations and provide the capital to satisfy our liquidity needs beyond one year. However, there continues to be significant uncertainty about the duration and long-term effects of COVID-19 and it is possible the effects of COVID-19 may further impact our liquidity and our ability to operate as we have historically. We may also continue to be limited in our ability to contact customers and install new solar energy systems. There is also a risk that our alternative fund-raising activities are unsuccessful.

Management has taken actions to mitigate the negative impacts of COVID-19, and to alleviate some risk to our liquidity. These actions include, but are not limited to, cost reduction initiatives such as decreasing a significant portion of our workforce through furloughs and layoffs, salary reductions, temporarily closing warehouses and sales offices, eliminating expenditures, and deferring cash tax payments through the CARES Act. However, these efforts may not prove to be sufficient given the present uncertainties about the duration and severity of the COVID-19 pandemic.

Sources of Funds

Investment Fund Commitments

As of April 30, 2020, we had raised 28 investment funds to which investors such as banks and other large financial investors have committed to invest approximately $2.2 billion. The undrawn committed capital for these funds as of April 30, 2020 is approximately $124 million, which we estimate will fund approximately 52 megawatts of future deployments.

Debt Instruments

Debt obligations consisted of the following as of March 31, 2020 (in thousands, except interest rates):

	Principal Borrowings Outstanding	Unused Borrowing Capacity	Interest Rate	Maturity Date
Solar asset backed notes, Series 2018-1(1)	$ 448,277	$ —	5.1%	October 2028
Solar asset backed notes, Series 2018-2(2)(3)	336,766	—	5.0	August 2023
2017 Term loan facility	177,437	—	6.0	January 2035
2018 Forward flow loan facility	124,188	—	4.7	November 2039
2019 Forward flow loan facility	115,186	34,814	4.7	(4)
Credit agreement	1,261	—	6.5	February 2023
Revolving lines of credit				
Warehouse facility	280,000	45,000	4.3	August 2023
Asset Financing Facility(5)	114,000	66,362	4.5	June 2023
Total debt	$ 1,597,115	$ 146,176		

(1) The interest rate disclosed in the table above is a weighted-average rate. The Series 2018-1 Notes are composed 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 composed 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 these notes is partially hedged to an effective interest rate of 6.0% for $322.1 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 November 20, 2020.

(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, 2020.

Revenue from Operations

In the three months ended March 31, 2020, we generated $51.3 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 $25.8 million related to System Sales for the three months ended March 31, 2020. 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,	
	2020	2019
Net cash (used in) provided by:	(In thousands)	
Operating activities	$ (95,862)	$ (69,993)
Investing activities	(80,889)	(64,168)
Financing activities	146,499	131,749
Net decrease in cash and cash equivalents, including restricted amounts	$ (30,252)	$ (2,412)

Operating Activities

In the three months ended March 31, 2020, we had a net cash outflow from operations of $95.9 million. This was primarily due to outflows of $38.2 million from our net loss excluding noncash and non-operating items and $57.7 million of outflows from changes in working capital.

Investing Activities

In the three months ended March 31, 2020, we used $80.9 million for investing activities primarily due to the costs associated with the design, acquisition and installation of solar energy systems.

Financing Activities

In the three months ended March 31, 2020, we generated $146.5 million from financing activities, of which $85.7 million represented proceeds from investments by non-controlling interests and redeemable non-controlling interests received by our investment funds and $77.4 million represented proceeds from long-term debt. These proceeds were partially offset by distributions to non-controlling interests and redeemable non-controlling interests of $12.3 million and repayments of long-term debt of $5.1 million.

Contractual Obligations

Our contractual commitments and obligations are set forth in our Annual Report on Form 10-K for the year ended December 31, 2019. Material changes that have occurred during the three months ended March 31, 2020 include the following:

- Additional borrowings and repayments resulted in a net $72.3 million increase in principal borrowings and $21.6 million in additional expected interest. For additional information, see Note 11—Debt Obligations.
- Distributions payable to non-controlling interest and redeemable non-controlling interests decreased by $2.8 million.
- Future minimum lease payments have changed as a result of leasing activity during the period. See Note 12—Leases for current schedules of future minimum lease payments on our finance and operating 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 3. Quantitative and Qualitative Disclosures about Market Risk

Pursuant to the Instructions to Paragraph (c) of Item 305 of Regulation S-K, information is not required to be disclosed under Item 305(c) of Regulation S-K for interim periods until after the first fiscal year end in which Item 305 is applicable, which for us will be interim periods after December 31, 2020.

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, 2020 pursuant to Rule 13a-15 under 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 as of March 31, 2020.

Changes in Internal Control over Financial Reporting

During the first quarter of 2020, we implemented an Oracle cloud-based Enterprise Resource Planning system, or ERP. Concurrent with the transition to the new ERP, we are updating our internal control over financial reporting, as necessary, to accommodate related changes in our business processes, which will require testing for effectiveness during the remaining quarters of 2020. We presently do not believe this implementation will have an adverse effect on our internal control over financial reporting. There were no other changes in our internal control over financial reporting during the three months ended March 31, 2020 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

The COVID-19 pandemic has negatively affected and will likely continue to negatively affect our business, financial condition, liquidity and results of operations.

The current COVID-19 pandemic has had, and likely will continue to have, repercussions across local, state and national economies and financial markets. The COVID-19 pandemic has caused a deterioration in the U.S. economy and our industry and could result in a period of substantial economic and financial turmoil. Our team members and customers are located in areas impacted by COVID-19, and COVID-19 has negatively impacted our business, team members, current and potential customers, as well our financial condition, liquidity, and results of operations.

Our business operations have experienced significant disruptions due to the unprecedented conditions surrounding COVID-19 in the United States, which has required us to modify our business practices. Since March, we have been following the recommendations of state and local health authorities to minimize the exposure risk for team members and customers, including restricting access to our physical offices. Our direct-to-home sales professionals have had to quickly adapt to remote sales practices. If government restrictions on our activities continue for an extended period of time, are reimposed after being lifted or if customer receptivity to our products and sales channels changes as a result of COVID-19, our operating results, financial condition and prospects would be adversely affected.

Management has devoted significant time and attention to assessing the potential impact of COVID-19 and related events on our operations and financial position and has developed operational and financial plans to address those matters. We have taken many actions, including, but not limited to, having employees work from home where possible, practicing social distancing in all aspects of our business, reducing our workforce, reducing compensation, temporarily closing warehouses and sales offices, and eliminating expenditures. If we are not able to hire, or rehire, our workforce in a timely way as COVID-19 restrictions are loosened and are unable to meet the demand for our solar energy systems, our future operating results and prospects may be adversely affected.

There is no certainty that such measures will be sufficient to mitigate the risks posed by the pandemic, and our ability to perform certain functions could be negatively impacted. While the potential impact and duration of the COVID-19 pandemic on the U.S. economy and our industry in particular are difficult to assess or predict, the pandemic has resulted in changes to the capital markets, which have negatively affected the timing and type of funding we expected to obtain as part of our planned business processes, and which may further reduce or delay our ability to access capital and negatively affect our liquidity and results of operations. In addition, a recession or further financial market correction resulting from the spread of COVID-19 could adversely affect demand for our products, reduce our ability to install our products, impact our supply chain, including the pricing, timing and availability of equipment, or cause a decrease in collections from our customers, among other negative impacts. These events could cause a material adverse effect on our financial position, liquidity, and results of operations.

The COVID-19 pandemic is rapidly evolving, and we will continue to monitor the situation closely. The ultimate impact of this pandemic is highly uncertain and subject to change. The extent of the impact of the COVID-19 pandemic on our operational and financial performance will depend on future developments, including, but not limited to, the duration and spread of the pandemic, its severity, the actions to contain the disease or mitigate its impact, and the duration, timing and severity of the impact on customer behavior, including any recession resulting from the pandemic, all of which are uncertain and cannot be predicted. An extended period of economic disruption as a result of the COVID-19 pandemic could have a material negative impact on our business, financial position, liquidity, and results of operations, though the full extent and duration is uncertain. The COVID-19 pandemic may also intensify the risks described in the other risk factors disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019.

Impacts from COVID-19 may reduce our ability to secure additional funding and maintain sufficient liquidity.

We require cash to finance the deployment of solar energy systems. As of the date of this filing, we will require additional sources of cash beyond current cash balances and currently available financing facilities to fund long-term planned growth. If we are unable to secure additional financing when needed, or upon desirable terms, we may be unable to finance installation of customers' solar energy systems in a manner consistent with past performance, cost of capital could increase, or we may be required to significantly reduce the scope of operations, any of which would have a material adverse effect on our business, financial condition, results of operations and prospects.

The impact of COVID-19 has resulted in changes to the capital markets, which have negatively affected our liquidity position. The timing and type of funding we expected to obtain as part of our planned business processes has been disrupted. As a result, we have initiated other funding alternatives to allow us to continue business activities for at least the next 12 months from the date of this filing. These funding alternatives may prove to be more expensive, less favorable options than previously expected. We expect to obtain additional capital needed to resume growth and normal operations and provide the capital to satisfy our liquidity needs beyond one year. However, there continues to be significant uncertainty about the duration and long-term effects of COVID-19 and it is possible the effects of COVID-19 may further impact our liquidity and our ability to operate as we have historically. We may also continue to be limited in our ability to contact customers and install new solar energy systems. There is also a risk that our alternative fund-raising activities are unsuccessful.

Management has taken actions to mitigate the negative impacts of COVID-19, and to alleviate some risk to our liquidity. These actions include, but are not limited to, cost reduction initiatives such as decreasing a significant portion of our workforce through furloughs and layoffs, salary reductions, temporarily closing warehouses and sales offices, eliminating expenditures, and deferring cash tax payments through the CARES Act. However, these efforts may not prove to be sufficient given the present uncertainties about the duration and severity of the COVID-19 pandemic.

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:

- the state of financial and credit markets and other macroeconomic factors including the continued impacts of COVID-19;
- 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;
- 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, including the step-down of the ITC, 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' solar energy 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, 2020, we had raised 28 investment funds to which investors such as banks and other large financial investors have committed to invest approximately $2.2 billion. The undrawn committed capital for these funds as of April 30, 2020 was approximately $124 million, which we estimate will fund approximately 52 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 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 investors' capital or pay the fund investors 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. The COVID-19 pandemic has resulted in significant disruption of capital markets, which may reduce our ability to access capital and could negatively affect our liquidity and results of operations. 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 or for use as collateral, 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 raising capital 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 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 offers a 30% ITC under Section 48(a) of the Internal Revenue Code for the installation of certain solar power facilities as long as construction of the solar energy system began by December 31, 2019. By statute, the ITC decreased to 26% of the basis of a solar energy system for systems where construction begins in 2020, and will further decrease to 22% for systems where construction begins in 2021 and 10% for systems where construction begins after 2021 or, regardless of when construction begins, where the solar energy system is placed into service after 2023. 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, the deductibility of interest expense, and the meaning of "beginning construction" for purposes of the ITC step-down described above 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 reduction beginning in 2020, unless modified by a change in law, may impact the attractiveness of solar energy to these investors and could potentially harm our business.

In order to take advantage of the higher ITC rates available based on the year in which construction on a solar energy system begins, we placed orders for solar energy components that we paid for prior to the end of 2019 and entered into contracts for products where significant physical work had begun prior to the end of 2019. While we have attempted to ensure that these orders and physical work plans will comply with guidance issued by the IRS, this guidance is relatively limited and could change without notice. As such, it is possible that our financing partners or the IRS could challenge whether construction has begun for purposes of the ITC rate step-down described above. It is also possible that we will not be able to use all of the solar energy system components purchased pursuant to this plan.

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:

- unanticipated consequences of COVID-19 such as relative changes in power consumption between commercial and residential properties;
- 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, further actions the current and future administrations in the United States, the U.S. Department of Energy, the Federal Energy Regulatory Commission, or FERC, and individual states 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. Proposed changes to such policies have been considered and will continue to be considered by federal and state administrators, and any resulting 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, including those 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 energy system 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 several states in which we operate. 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 in 2019 and in 2018 again referenced its net metering authority when imposing 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. In April 2020, an advocacy group filed a petition for declaratory order at the FERC in Docket No. EL20-40-000 requesting that FERC declare the net excess generation transferred from the retail customer to the utility pursuant to a net metering program must be valued at the utility’s avoided cost pursuant to federal law. While such a declaration would be contrary to established precedent and state laws, if FERC grants the Petition, such ruling could undermine the value that customers received from our solar energy systems and could therefore adversely impact our business, results of operations and future growth.

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 since February 2018 and a general decrease in supply in the solar panel market, industry experts indicate that solar panel and raw material prices are expected to generally decline in the future. It is possible, however, that prices will not decline at the same rate as they have over the past several years or that prices may increase. In addition, growth in the solar industry in the United States and abroad 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. The advent of COVID-19 has further increased the potential for volatility in the marketplace as disruptions in supply could contribute to shortages, while depressed demand could lead to oversupply, with commensurate impacts on pricing for the foreseeable future.

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, Korea and Vietnam. Changes in governmental support or regulation in China or the other countries where these products are manufactured, unforeseen public health crises, political crises, or other catastrophic events, whether occurring in China, the United States or other countries, could disrupt our supply chain, affect our ability to purchase panels on competitive terms, and restrict our access to specialized technologies.

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 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. 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 increased to 25% in May 2019. We are currently seeing various responses from inverter suppliers to the 25% tariff, as they pass on various portions of the tariff to the purchaser through price increases.

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. In addition, volatility in the market due to the continued effects of COVID-19 could influence the costs of solar panels and other system components, along with changes in supply and demand. 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 12% of total megawatts installed in the three months ended March 31, 2020. If customer preferences or the residential solar energy market 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, 2020, approximately 36% of our cumulative megawatts installed were located in California, and the concentration of systems located in California has increased in recent years. 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, impacts from the COVID-19 pandemic 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 FERC, 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 the near future, 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 $101.9 million and $61.7 million for the three months ended March 31, 2020 and 2019. 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:

- the adverse impacts and duration of COVID-19 directly on our business as well as its macroeconomic impacts;
- adapting our cost structure to match sales and installation volumes as a result of COVID-19;
- 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;
- reducing our operating costs by optimizing our sales, design and installation processes and supply chain logistics;

- managing our customer acquisition costs; and
- managing our exposure to regulatory and legal actions.

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 the direct-to-home sales channel.

Historically, our primary sales channel has been a direct-to-home sales model. However, as a result of COVID-19, we are rapidly shifting to a remote selling and e-commerce model and we may not be successful implementing this new model. We also sell to customers through our inside sales team and through the homebuilder and retail distribution channels. 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 professionals 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 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, retail e-commerce channels and adapt to a remote selling model, we have incurred and may continue to incur significant costs including but not limited to, fees related to meeting volume requirements, investments into inside sales to support these efforts and other information technology investments. 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, including efficiently increasing our customer base and ultimately reducing costs. 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;
- inability to achieve the financial and strategic goals for these channels; and
- potential conflicts between sales 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 effective sales professionals.

The success of our direct-to-home sales efforts depends upon the recruitment, retention and motivation of a large number of sales professionals 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 professionals on a continuing basis. Sales professionals are attracted to direct-selling by competitive earnings opportunities, and direct-sellers typically compete for sales professionals 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 compensate our sales professionals primarily on a commission basis, based on system size, contract rate and the expected number of hours the rooftop will be exposed to full sunlight. Certain of our sales professionals in leadership roles also receive equity compensation. Some sales professionals may prefer a compensation structure that also includes a salary component or other benefits. There is significant competition for sales talent in our industry, and from time to time we may need to adjust our compensation model to respond to this competition. 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 professionals could be harmed by additional factors, including:

- negative impacts of COVID-19, which limit direct-to-home sales;
- 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 professionals, or perception that other product or income opportunities are more attractive;
- any negative public perception of our sales professionals 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 professionals in such market.

We are subject to significant competition for the recruitment of sales professionals from other direct-selling companies and from other companies that sell solar energy systems in particular. Regional and district managers of our sales professionals are instrumental in recruiting, retaining and motivating our sales professionals. When managers have elected to leave us and join other companies, the sales professionals they supervise have often left with them. We may experience increased attrition in our sales professionals 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 professionals. 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, or NYPSC, 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 NYPSC expanded its original order of October 2017 in March 2019. The order, which is part of a broader proceeding before the NYPSC associated with regulating and overseeing distributed energy resource suppliers, is premised on the NYPSC's determination that it has the jurisdiction to oversee certain aspects of our business, and businesses like ours, in the same way that it oversees public utilities. Though the NYPSC 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, and the consumer protection order entered by the California Public Utilities Commission in October 2018 is premised, in part, on the notion that the California Public Utilities Commission has authority to regulate certain aspects of rooftop solar energy providers. 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 fair market value determinations industry-wide and is currently conducting an audit of one of our investment funds. We are not aware of any other 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 the current examination of one of our investment funds or an examination of any other fund, 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 (typically, 99%) of the difference between the fair market value used to establish our basis for claiming ITCs and the adjusted ITC basis 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.

The phase-out of LIBOR may adversely affect a portion of our outstanding debt.

The London Interbank Offered Rate, or LIBOR, is scheduled to be phased out by the end of 2021. It is anticipated that new alternative floating borrowing rates will be adopted. Changes in the method of determining LIBOR, or the replacement of LIBOR with an alternative floating borrowing rate, may adversely affect our borrowing costs. Certain of our debt instruments have interest rates that are LIBOR based and will not have matured prior to the phase-out of LIBOR. We cannot predict the effect of the potential changes to LIBOR or the establishment and use of alternative floating borrowing rates on the portion of our outstanding debt that is LIBOR based. Challenges in changing to a different borrowing rate may result in less favorable pricing on certain of our debt instruments and could have an adverse effect on our financial results and cash flows.

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 will occur in the third quarter of 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 it entered 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 could occur 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, 2020, we and our subsidiaries had outstanding $1.6 billion in principal amount of indebtedness, including through debt facilities and asset-backed securities issued by our subsidiaries. As of March 31, 2020, we had up to $146.2 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 investment funds until it is 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.

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 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.

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 composed 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. Similar long-term utility requirements for 100% renewable or emission-free electricity are being put in place in Hawaii, New Mexico, Nevada, Washington, Maine, New York and other states. 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. As a result of COVID-19, we have taken several actions to reduce our workforce through furloughs and layoffs and reducing compensation expense through salary reductions to match anticipated volumes. Any current or future workforce reductions could in turn adversely affect retention, motivation and productivity. 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. 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. The COVID-19 pandemic and emergency orders issued by state and local governments, including but not limited to access restrictions, delays in inspections, permits and interconnection approvals, may adversely affect our ability to construct and install solar energy systems and may cause cost overruns, delays or other execution issues which may cause us not to achieve our expected results.

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. As a result of the COVID-19 pandemic, some of our suppliers have encountered some disruptions to their supply chains, logistics and business operations. However, they have been delivering inventory to us reliably with only occasional delays and minimal impacts to our business thus far. If the COVID-19 pandemic causes conditions for our suppliers to degrade further, our suppliers' ability to timely execute deliveries could be negatively impacted. 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, some of which include purchase commitments into 2021. 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 historically has been 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 duration and impacts of COVID-19;
- 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, and our ability to manage, related expenditures;
- our ability to manage our exposure to regulatory and legal action;
- 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.

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, processes and operations. 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 professionals, 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. From time to time, we are or may become the subject of investigations and other formal and informal proceedings from various federal, state and local regulatory agencies, including, but not limited to, state attorney generals' offices. 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.

In January 2020, we entered into a settlement agreement called an Assurance of Discontinuance, or Settlement, with the New York Attorney General, or NYAG. The Settlement requires us to adopt certain changes to our sales and marketing practices in New York and pay approximately $2.0 million to the State of New York in three payments. We accrued this amount in our financial statements as of December 31, 2019, and already paid $1.0 million in January 2020. The Settlement required us to notify New York customers about the Settlement and their potential rights under it, including the potential rights to have us remove their system, leave their property in a watertight condition, cancel contracts, and refund amounts paid, and/or to repair property damage. The NYAG will be the final arbiter of any disputes as to the consumer's eligibility for relief. We accrued another $2.0 million for this potential liability in general and administrative expenses for the period ending December 31, 2019, which represents our current best estimate of potential loss. Future adjustments to our current accrual, which currently cannot be estimated, could adversely impact our operating results in the period or periods in which any such adjustments are made. Actual expenses may deviate materially from our estimate.

In addition, from time to time, regulatory agencies enact or amend regulations relating to the marketing of our products to residential customers. Any investigations, actions, adoption or amendment of regulations relating to the marketing of our products to residential consumers 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 professionals and other personnel will always comply with our standard practices and policies, as well as applicable laws and regulations. In any of the numerous interactions between our sales professionals or other personnel and our customers or potential customers, our sales professionals or other personnel may, without our knowledge and despite our efforts to effectively train them and enforce compliance, engage in conduct that is or may be prohibited under our standard practices and policies and applicable laws and regulations. Any such non-compliance, or the perception of non-compliance, has exposed us to claims and could expose us to additional claims, proceedings, litigation, investigations, or enforcement actions by private parties or regulatory authorities, as well as substantial fines and negative publicity, each of which may materially and adversely affect our business and reputation. We have incurred, and will continue to incur, significant expenses to comply with the laws, regulations and industry standards that apply to us.

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, subject to claims, proceedings, litigation, investigations or enforcement actions by private parties or regulatory authorities. For examples, see Note 19—Commitments and Contingencies. While we intend to defend against these actions vigorously, the ultimate outcomes of certain of these cases are presently not determinable as they are in preliminary phases. In general, legal proceedings 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, may harm our brand and reputation and could result in settlements or damages that could significantly affect our financial results and how we conduct our business. It is not possible to predict the final resolution of the legal proceedings 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.

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 large fleet of 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 has historically been 20 years and is 20 or 25 years beginning in 2020. 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 customer. Solar Leases with performance guarantees require us to refund certain payments to the customer 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 25 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 the occurrence of 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, 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 sales professionals fail to adhere to our standards, 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 the headcount of our direct-to-home sales professionals, 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 professionals 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 resulted in litigation and affected our digital footprint on rating websites and social media platforms. If our hiring, training and management processes fail to eliminate these issues, our reputation may be harmed and our ability to attract new customers could 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 further 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 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 intend to continue to expand our business within existing markets, in a number of new locations and through new sales channels in the future. This future growth may place a strain on our management and 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. Furthermore, an inability to generate cash from operating and financing activities may impact our growth prospects. 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. As a result of the impacts of COVID-19, we have taken actions to reduce our workforce to match anticipated volumes. When the current macroeconomic effects from COVID-19 pass in a future period, we may be unable to quickly scale our workforce back up to respond effectively to restored demand.

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, electric vehicle charging stations or generators, 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 future acquisitions or strategic initiatives, and integration of any acquisition or implementation of any strategic initiatives may disrupt our business and management.

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

- difficulty in assimilating the operations and personnel;
- 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 accounting, management information and other administrative systems;
- inability to retain key technical and managerial personnel;
- inability to retain key customers, vendors and other business partners;
- inability to achieve the financial and strategic goals for the acquired or 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, regulatory 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.

Acquisitions of companies or strategic initiatives are inherently risky, and if we do not complete integration or implementation successfully and in a timely manner, we may not realize the anticipated benefits of the acquisitions or strategic initiatives 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 for 20 or 25 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, 2020, the average FICO score of our customers was approximately 755. However, as we grow our business, and as a result of macroeconomic conditions, including from the current COVID-19 pandemic, the risk of customer defaults could increase. Our reserve for this exposure is estimated to be $10.7 million as of March 31, 2020, 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 lenders with whom we have relationships, 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.

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 also receive and maintain confidential information about our own business, including trade secrets and sensitive business information, and receive confidential information from third parties. We engage third-party vendors and service providers to store and otherwise process some of our and our customers' data, including sensitive and personal information. We and our vendors and service providers may be the targets of cyberattacks, malicious software, phishing schemes, and fraud, and we and our vendors and service providers may suffer cybersecurity breaches and other security incidents due to these and other causes, including employee or contractor error. Our ability to monitor our vendors and service providers' data security is limited, and, in any event, third parties may be able to circumvent those security measures, resulting in the unauthorized access to, misuse, disclosure, loss or destruction of our and our customers' data, including sensitive and personal information.

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 due to the factors detailed above, there is no guarantee that inadvertent or unauthorized use or disclosure will not occur or that third parties will not gain unauthorized access to the information despite our efforts and those of our vendors and service providers. 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, to implement adequate preventative or mitigation measures, to identify any attacks or incidents on a timely basis, or to remediate or otherwise address any attacks or incidents in a timely manner. The COVID-19 pandemic generally is increasing the attack surface available to criminals, as more companies and individuals work remotely and otherwise work online. Consequently, the risk of a cybersecurity incident suffered by us or our vendors or service providers is increased, and our investment in risk mitigations against cybersecurity incidents is increasing. We cannot provide assurances that our preventative efforts, or those of our vendors or service providers, will be successful. In addition, due to a potential time lapse between when certain of our contracted sales professionals and other independent contractors leave us and when we are made aware of their separation, such contracted sales professionals and other independent contractors may have continued access to our customers' information for a period of time when they should not have such access until we are able to restrict their access.

We are also subject to laws and regulations relating to the collection, use, retention, security and transfer of personal information of our customers and other individuals. 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. For example, the California Consumer Privacy Act, or CCPA, became operational on January 1, 2020. The CCPA requires covered companies to, among other things, provide new disclosures to California consumers, and affords such consumers new abilities to opt-out of certain sales of personal information. Certain aspects of the CCPA and its interpretation remain uncertain and are likely to remain uncertain for an extended period, and we cannot predict the full impact of the CCPA on our business or operations. The CCPA has required us to modify our data practices and policies, and to incur costs and expenses, in an effort to comply. 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, we could suffer consequences including fines, other costs and penalties, and the potential loss of our ability to accept payments via credit cards. 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 result in harm to our business and results of operations. If any such unauthorized use or disclosure of, or access to, such personal information or other 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 or other 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. Even the perception of inadequate security may damage our reputation and negatively impact our ability to win new customers and retain existing customers. Further, we could be required to expend significant capital and other resources to address any data security incident or breach and to implement measures in an effort to prevent further breaches or incidents.

In addition, we cannot assure that any limitation of liability provisions in our customer and user agreements, contracts with third-party vendors and service providers or other contracts would be enforceable or adequate or would otherwise protect us from any liabilities or damages with respect to any particular claim relating to a security breach or other security-related matter. While our insurance policies include liability coverage for certain of these matters, if we experienced a widespread security breach or other incident that impacted a significant number of our customers to whom we owe indemnity obligations, we could be subject to indemnity claims or other damages that exceed our insurance coverage. We also cannot be certain that our insurance coverage will be adequate for data handling or data security liabilities actually incurred, that insurance will continue to be available to us on economically reasonable terms, or at all, or that any future claims will not be excluded or otherwise denied coverage by any insurer. The successful assertion of one or more large claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have a material adverse effect on our business, including our financial condition, operating results and reputation.

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.

On January 17, 2020, Vivint merged with Mosaic Acquisition Corp. to become a publicly traded company and our Sponsor currently continues to own a majority interest in both Vivint and us. However, we anticipate that we will eventually cease to be a "controlled company."

We have entered into certain agreements with Vivint. In August 2017, we entered into a sales dealer agreement with Vivint, which was amended and restated in March 2020. 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 one-year term, which automatically renews 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 Recruiting Services Agreement we have entered into with Vivint in March 2020, we and Vivint each have agreed not to solicit for employment any member of the other's executive or senior management team, any dealer, 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 Recruiting Services 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 professionals 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 professionals could expose us to increased claims, proceedings, litigation and investigations by consumers and regulatory authorities. In addition, having sales professionals who work for both Vivint and us could distract such sales professionals, impact the effectiveness of our sales professionals, and potentially increase the turnover of our existing sales professionals who may feel displaced by the addition of Vivint sales professionals to our existing sales professionals. Pursuant to the terms of the Subscriber Generation Agreement we have entered into with Vivint Amigo, Inc., a wholly owned subsidiary of Vivint, in March 2020, Vivint employees will use the Amigo Application to provide lead generation services.

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 for so long as Vivint remains our sister company. 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, 2020, 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:

- the continued adverse impacts of COVID-19;
- 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;
- actual or perceived privacy or data security incidents;
- 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, employees or members of our board of directors, 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;
- potential acquisitions; and
- negative publicity, including accurate or inaccurate commentary or reports regarding us, our products, our sales professionals or other personnel, or other third parties affiliated with us, on social media platforms, blogs and other websites.

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.

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. If our new ERP system was not implemented correctly or does not operate as intended, the effectiveness of our internal controls over financial reporting could be adversely affected or our ability to adequately assess it could be delayed. Failure to maintain effective internal controls could cause investors to lose 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.

Additionally, we are required to obtain an annual audit of our internal controls over financial reporting from our independent registered public accounting firm under Section 404 of the Sarbanes-Oxley Act. Our compliance with applicable provisions of Section 404 requires that we incur substantial accounting expense and expend significant management time on compliance-related issues and comply with reporting requirements. Moreover, if we are not able to comply with the requirements of Section 404 applicable to us in a timely manner, or if we or our independent registered public accounting firm identify deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

Furthermore, investor perceptions of our company may suffer if deficiencies are found, and this could cause a decline in the market price of our stock. Irrespective of compliance with Section 404, any failure of our internal control over financial reporting could have a material adverse effect on our stated operating results and harm our reputation. If we are unable to comply with these requirements effectively or efficiently, it could harm our operations, financial reporting, or financial results and could result in an adverse opinion on our internal control over financial reporting from our independent registered public accounting firm. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

We cannot be certain that we will be successful in preparing adequate disclosures now that we are no longer able to utilize certain modified disclosure requirements permitted for an emerging growth company or a smaller reporting company within the meaning of the Securities Act.

We ceased to be an emerging growth company in 2019 and no longer qualify to use the smaller reporting company designation after the filing of our Annual Report on Form 10-K for the year ended December 31, 2019. As an emerging growth company, we were able to take advantage of exemptions from various reporting requirements applicable to other public companies including, but not limited to, not being required to have our independent registered public accounting firm audit our internal controls 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. Similar to emerging growth company status, the smaller reporting company designation allowed us to maintain reduced disclosure obligations regarding executive compensation in periodic reports and proxy statements and certain other reduced disclosure obligations in our SEC filings.

As a public company without the emerging growth company status or smaller reporting company designation, we are required to increase our disclosures in periodic reports, proxy statements and other SEC filings compared to our historical filings. These increased disclosure standards may place a burden on our financial and management resources. If our additional disclosures in future filings are perceived as insufficient or inadequate by investors or regulatory authorities, the market price of our stock could decline, and we could be subject to actions by stockholders or regulatory authorities.

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, 2020, we had 124.7 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 9.9 million shares of common stock remained outstanding as of March 31, 2020, with 1.4 million of those shares being vested and exercisable as of March 31, 2020. 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.

Moreover, in connection with the completion of the merger of Vivint and Mosaic Acquisition Corp. on January 17, 2020, certain holders of Class A Units and Class B Units of 313 Acquisition LLC, including David Bywater, David D'Alessandro and Todd Pedersen but excluding our Sponsor, had or will have their units redeemed in exchange for a number of shares of our common stock and Vivint's common stock or for tracking units redeemable for such shares over a vesting period. The approximately 4.7 million shares of our common stock distributed in connection with completion of the merger and the number of shares of our common stock that will be distributed during the vesting period of the tracking units may be freely sold in the public market in the United States subject to the requirements of Rule 144. The exact number of shares distributed upon redemption of the tracking units was determined based on the ratio of the value of our common stock and Vivint's common stock on January 17, 2020.

As of March 31, 2020, stockholders owning an aggregate of 70.5 million shares of our common stock were 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. We registered an additional 12.9 million shares in March 2017 and 14.3 million shares in March 2020. 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, 2020, 313 Acquisition LLC, which is controlled by our Sponsor and its affiliates, beneficially owned approximately 56% 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 our former director 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 our other investors.

We expect that 313 Acquisition LLC will eventually cease to control us as a result of potential future equity offerings by 313 Acquisition LLC or us and other distributions by 313 Acquisition LLC of shares of our common stock, for example in connection with the merger of Vivint and Mosaic Acquisition Corp., as well as the vesting over time of our equity awards. If and when 313 Acquisition LLC ceases to control us, we will no longer be a "controlled company" under the corporate governance rules of the New York Stock Exchange, or NYSE, and will no longer be able to benefit from the related exemptions, and we may also become a more likely target of short-term activist investors whose interests may be different than those of our other stockholders.

We have elected to take advantage of the "controlled company" exemption to the NYSE corporate governance rules, 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.

If 313 Acquisition LLC were to sell, transfer or otherwise distribute an amount of its shares of our company such that neither it nor another company, individual or group would hold more than 50% of the voting power for the election of our directors, we would no longer be a controlled company. We intend to comply with all applicable NYSE rules if we cease to be a controlled company, however, we may have difficulties complying with NYSE rules relating to the composition of our board of directors, and there can be no assurance that we will be able to attract and retain the number of independent directors needed to comply with NYSE rules before the end of the phase-in period for compliance.

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 our former director 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

10.1	Executive Employment Agreement, dated as of November 6, 2017, by and between the Company and Chance Allred
10.2	Executive Employment Agreement, dated as of September 28, 2017, by and between the Company and Paul Dickson
10.3	Amendment to Executive Employment Agreement, dated as of November 2, 2017, by and between the Company and Paul Dickson
10.4	Amended and Restated Sales Dealer Agreement, dated as of March 4, 2020, by and between Vivint Solar Developer, LLC and Vivint Smart Home, Inc. (incorporated by reference to Exhibit 10.41 to the Company's Annual Report on Form 10-K (File No. 001-36642) filed with the Securities and Exchange Commission on March 10, 2020)
10.5†	Recruiting Services Agreement, dated as of March 4, 2020, between Vivint Solar Developer, LLC and Vivint Smart Home, Inc. (incorporated by reference to Exhibit 10.42 to the Company's Annual Report on Form 10-K (File No. 001-36642) filed with the Securities and Exchange Commission on March 10, 2020)
31.1	Certification of Chief Executive Officer, pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer, pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002
32.1*	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
32.2*	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
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL 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.
†	Portions of this exhibit have been omitted in accordance with Item 601(b)(10) of Regulation S-K.

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 7, 2020

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

Date: May 7, 2020

/s/ Dana Russell
Dana Russell
Chief Financial Officer, Executive Vice President, and Assistant Secretary
(Principal Financial Officer)

Exhibit 10.1

EXECUTIVE EMPLOYMENT AGREEMENT

THIS EXECUTIVE EMPLOYMENT AGREEMENT ("***Agreement***") dated as of November 6, 2017 (the "***Effective Date***"), is made by and between Vivint Solar, Inc., a Delaware corporation (together with any successor thereto, the "***Company***") and Chance Allred (the "***Executive***").

WHEREAS, the Company and the Executive have entered into an Employment Agreement, dated August 28, 2013 (the "***Prior Employment Agreement***") and the Executive has been and is currently employed by the Company;

WHEREAS, the Company desires to continue to employ the Executive, and the Executive desires to be employed by the Company, on the terms herein provided; and

WHEREAS, the Company and the Executive desire to terminate the Prior Employment Agreement and replace and supersede the Prior Employment Agreement in its entirety with this Agreement;

NOW, THEREFORE, in consideration of the foregoing and of the respective covenants and agreements set forth below the parties hereto agree as follows:

1. Certain Definitions.

(a) "***Board***" shall mean the Board of Directors of the Company.

(b) "***Cause***" for the Company to terminate the Executive's employment hereunder shall exist upon the occurrence of any of the following during Executive's employment by the Company (except with respect to clause (v) below): (i) material personal dishonesty by Executive involving Company business or participation in a fraud against the Company, or Executive's breach of Executive's fiduciary duty to Company; (ii) Executive's indictment or conviction of a felony or other crime involving moral turpitude or dishonesty; (iii) Executive's willful material refusal to comply with the lawful requests made of Executive by the Board reasonably related to Executive's employment by the Company and the performance of Executive's duties with respect thereto (but which shall not include a request to waive or amend any portion of this Agreement or terminate this Agreement or to consent to an action that would result in Executive's loss of a right under this Agreement); (iv) Executive's material violation of the Company's policies, after written notice to Executive and an opportunity to be heard by the Board and Executive's failure to fully cure such violations within a reasonable period of time of not less than thirty (30) days after such hearing; (v) Executive's threats or acts of violence in the workplace; (vi) Executive's unlawful harassment in the course of any business activity of any employee or independent contractor of the Company; (vii) Executive's theft or unauthorized conversion by or transfer of any Company asset or business opportunity to Executive or any third party; and (viii) a material breach by Executive of any material provision of this Agreement or any other agreement with the Company after written notice to Executive and an opportunity to be heard by the Board and Executive's failure to fully cure such breach within a reasonable period of time of not less than 30 days after such hearing.

(c) "***Change in Control***" shall mean the occurrence of any of the following:

(i) *Change in Ownership of the Company*. A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("***Person***"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than 50% of the total voting power of the stock of the Company; or

(ii) *Change in Effective Control of the Company*. A change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any 12-month period by directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this clause (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person shall not be considered a Change of Control; or

(iii) *Change in Ownership of a Substantial Portion of the Company's Assets*. A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, however, that for purposes of this subsection (iii), the following will not constitute a change in the ownership of a substantial portion of the Company's assets: (A) a transfer to an entity that is controlled by the Company's stockholders immediately after the transfer, or (B) a transfer of assets by the Company to: (1) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock, (2) an entity, 50% or more of the total value or voting power of which is owned, directly or indirectly, by the Company, (3) a Person, that owns, directly or indirectly, 50% or more of the total value or voting power of all the outstanding stock of the Company, or (4) an entity, at least 50% of the total value or voting power of which is owned, directly or indirectly, by a Person described in this subsection (iii)(B)(3). For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets. For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For these purposes, persons shall be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding the foregoing provisions of this definition, a transaction will not constitute a Change of Control unless the transaction qualifies as a change in control event within the meaning of Section 409A.

Further and for the avoidance of doubt, a transaction will not constitute a Change of Control if: (i) its sole purpose is to change the state of the Company's incorporation, or (ii) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(d) "***Change of Control Period***" means the period beginning on the date six months prior to, and ending on the date that is 18 months following, a Change of Control.

(e) "***Compensation Committee***" means the compensation committee of the Board.

(f) "***Confidential Information***" means any present or future information belonging to the Company or its Affiliates (as defined below) that pertains to the Company's or its Affiliates' business, whether developed by Employee or by other employees, contractors, or agents, that is confidential or proprietary in nature, and that is not generally known in the public domain. Confidential Information includes, without limitation, information regarding the Company's finances, financial condition, operations, business plans, business opportunities, purchasing activities, suppliers or potential suppliers, costs of materials, pricing, margins, sales, markets, marketing strategies, plans and ideas, customers, customer lists, customer agreements, customer purchases, customer documents, potential customers, technical data, research, product plans, products, methodologies, services, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, trade secrets, Confidential Materials, Inventions, Employment Inventions, Intellectual Property, or any other confidential business information of the Company that is disclosed to or obtained by Employee, directly or indirectly, whether in writing, orally, by observation or electronically (through email, computer disk, DVD, CD-ROM, or other electronic means). For these purposes, "Affiliate(s)" means any corporation, firm, partnership or other entity that controls, is controlled by or is under common control with Company – including, but not limited to, Vivint Solar Developer, LLC and any of Company's subsidiaries.

(g) "***Confidential Materials***" means any tangible medium containing Confidential Information, including but not limited to paper, electronic or magnetic media, prototypes, products, and other materials.

(h) "***Customer***" means any individual or entity that (1) entered into a credit authorization agreement with the Company during the six months immediately preceding the date Employee left his or her employment with the Company or its Subsidiaries or (2) entered into a contractual agreement with the Company to purchase or lease any product or service offered by the Company or its Subsidiaries.

(i) "***Date of Termination***" shall mean if the Executive's employment is terminated.

(j) "***Disability***" shall mean that Executive has been unable to perform Executive's duties at the Company as the result of Executive's incapacity due to physical or mental illness, and such inability, at least 26 weeks after its commencement, is determined to be total and permanent by a physician selected by the Company or its insurers and acceptable to Executive or Executive's legal representative (such Agreement as to acceptability not to be unreasonably withheld). Termination resulting from Disability may only be effected after at least 30 days' written notice by the Company of its intention to terminate Executive's employment. In the event that Executive resumes the performance of substantially all of Executive's duties hereunder before the termination of Executive's employment becomes effective, the notice of intent to terminate shall automatically be deemed to have been revoked.

(k) "***Employment Inventions***" means any Invention or part thereof conceived, developed, reduced to practice, or created by Employee which is:

(i) conceived, developed, reduced to practice, or created by the Employee: (1) within the scope of the Employee's employment with the Company; (2) on the Company's time; or (3) with the aid, assistance, or use of any of the Company's property, equipment, facilities, supplies, resources, or Intellectual Property;

(ii) the result of any work, services, or duties performed by the Employee for the Company;

(iii) related to the industry or trade of the Company; or

(iv) related to the current or demonstrably anticipated business, research, or development of the Company.

(l) "***Good Reason***" means Executive's resignation within 90 days following the expiration of any Company cure period (discussed below) following the occurrence of one or more of the following, without Executive's express written consent:

(i) a material diminution in Executive's title, duties, authority, reporting position or responsibilities measured in the aggregate; or

(ii) a material reduction of Executive's base compensation (in other words, a material reduction in Executive's base salary or target bonus opportunity) as in effect immediately prior to such reduction, other than reductions implemented as part of an overall Company-wide reduction program that is applied similarly to all executive officers and is no more than 20%; or

(iii) a material change in the geographic location at which Executive must perform services (in other words, Executive's relocation to a facility or an office location more than a 75-mile radius from Executive's then current location); or

(iv) a material breach by the Company of a material provision of any material agreement between Executive and the Company.

Notwithstanding the foregoing, Executive agrees not to resign for Good Reason without first providing the Company with written notice of the acts or omissions constituting the grounds for Good Reason within ninety 90 days of the initial existence of the grounds for Good Reason and a reasonable cure period of thirty 30 days following the date of such notice.

(m) "***Intellectual Property***" means any and all patents, copyrights, trademarks, service marks, trade secrets, know how, technology, ideas, or computer software belonging to the Company or its affiliates.

(n) "***Inventions***" means any and all inventions, products, formulations, discoveries, ideas, developments, improvements, technology, know-how, products, devices, structures, equipment, processes, methods, techniques, formulas, trade secrets, texts, research, program, software, computer programs, source codes, data, designs, works of authorship, and or other materials, whether or not published, patented, copyrighted, registered or suitable therefor, and all intellectual property rights therein, to the extent they relate to the Company's past, present, future, or anticipated business, research, development or trade.

(o) "***Material Contact***" means personal contact or the supervision of the efforts of those who have direct personal contact.

(p) "***Pre-Existing Inventions***" means any and all inventions, discoveries, ideas, original works of authorship, developments, improvements, trade secrets and other proprietary information or intellectual property rights owned by Employee or in which Employee has an interest prior to, or separate from, Employee's employment with the Company, including, without limitation, any such inventions that qualifies fully under the provisions of California Labor Code Section 2870, Del.Code tit. 19, § 805, N.C.Gen.Stat. §§ 66-57.1, and Utah Code § 34-39-3(1).

(q) "***Restricted Business***" means any individual or entity that provides products and/or services that are competitive with those offered or provided by the Company or any of its subsidiaries at any time during the Restricted Period, including (without limitation) the following companies: Renovate America, Solar Mosaic, Spruce Finance, Sungevity, Sunrun, SolarCity, SunPower Corporation, Sunova Energy Corp., ION Solar, Trinity Solar, Tesla, NRG Energy, Legacy, Verengo, RGS Energy, OneRoof Energy, First Solar, Borrego Solar, groSolar, Smart Energy, Legend Solar, and any of their respective affiliates or current or future dealers.

(r) "***Restricted Period***" means during Executive's employment and for a period of 12 months following the date of Executive's termination of employment; provided, however, that if Executive's termination of employment occurs under the circumstances giving rise to payment under Section 5(b) of this Agreement, the Restricted Period will equal the Non-COC Severance Period.

(s) "***Restricted Territory***" means any geographic area that is within 100 miles of any geographic area in which the Company or any of its Subsidiaries engaged in business during the two years immediately preceding the date Executive left his employment with the Company or any of its Subsidiaries.

(t) "***Restricted Stock Unit***" shall have the meaning set forth in the Vivint Solar Inc. 2014 Equity Incentive Award Plan.

2. At-Will Employment.

The Company and Executive acknowledge that Executive's employment will continue to be at-will, as defined under applicable law. If Executive's employment terminates for any reason, including (without limitation) any termination for Cause, Executive shall not be entitled to any payments, benefits, damages, awards or compensation other than as provided by this Agreement or as may be available in accordance with the Company's established employee plans that provide benefits other than in the nature of severance or separation pay.

3. Position and Duties.

(a) Generally. The Executive shall serve as the Chief Sales Officer ("***CSO***") of the Company. Subject to reasonable modification from time to time by the Board, Executive shall report to the Board and shall serve as CSO of the Company with such customary responsibilities, duties and authority as are usually incident to the position of CSO. Executive shall be responsible for such duties normally associated with such position and as may be directed by the Board. Executive will, on a full-time basis, apply all of her skill and experience to the performance of her duties in such employment and will not, without the prior consent of the Board, devote substantial amounts of time to outside business activities. Notwithstanding the foregoing, Executive may devote a reasonable amount of her time to civic, community, charitable or passive investment activities.

(b) Subsidiaries. If elected or appointed thereto, and only for the duration of such elected term or appointment, the Executive shall serve as a director of the Company and any of its subsidiaries and/or in one or more executive offices of any of such subsidiaries, provided that the Executive is indemnified for serving in any and all such capacities as provided for in the Company By-laws or otherwise.

4. Compensation and Related Matters.

(a) Annual Base Salary. During Executive's employment, Executive shall receive a base salary (such base salary, as in effect from time to time, the "***Annual Base Salary***") at a rate of $350,000 per annum, provided that the Executive's Annual Base Salary may be revised as determined by the Board or its authorized committee with a view toward consideration of merit increases, market rates of pay for similarly situated executives and such other factors that the Board or its authorized committee determines to be appropriate. The Annual Base Salary shall be paid in arrears in substantially equal installments at monthly or more frequent intervals, in accordance with the normal payroll practices of the Company.

(b) Bonus. Executive shall be eligible to receive an annual performance bonus (the "***Annual Bonus***") to be determined by the Compensation Committee of the Board and based on criteria as set forth in the "Corporate Bonus Plan" or any successor Corporate Bonus Plan approved by the Compensation Committee, which shall include but necessarily be limited to achievement of individual and Company performance objectives. The target bonus will be 50% of Executive's Annual Base Salary, but shall be earned and determined by the Compensation Committee in its sole discretion. Executive must be employed by Company on the date Company pays the Annual Bonus and Executive will not earn or be entitled to any pro rata bonus payment if Executive's employment ends for any reason prior to such date. The Annual Bonus shall be paid on the same date corporate bonuses are paid pursuant to the Company's normal payroll practices, in no event later than March 15th of each calendar year.

(c) Commissions and Overrides. Executive will also receive the commission payments set forth in the Commission and Override Structure, attached hereto as Exhibit B (the "***Commission Structure***"), provided that the Commission Structure may be revised as determined by the Board or its authorized committee with a view toward consideration of merit increases, market rates of pay for similarly situated executives and such other factors that the Board or its authorized committee determines to be appropriate.

(d) Benefits. Executive shall be entitled to participate in the other employee benefit plans, programs and arrangements of the Company in effect during Executive's employment (including, without limitation, at the time of execution of this Agreement, health insurance, dental insurance, vision insurance, long-term disability coverage, short term disability, cellular phone reimbursement, and vacation for Executive and his/her eligible dependents) now (or, to the extent determined by the Compensation Committee, hereafter) in effect which are applicable to the senior officers of the Company (the "Eligible Benefit Plans"), subject to and on a basis consistent with the terms, conditions and overall administration thereof. The Executive agrees that nothing contained in this Agreement shall prevent the Company from terminating or modifying any such Eligible Benefit Plans in whole or in part at any time.

(e) Expenses. The Company shall reimburse the Executive for all reasonable travel and other business expenses incurred by her in the performance of her duties to the Company, in accordance with the Company's documentation and other policies with respect thereto.

5. Severance Benefits.

(a) Voluntary Resignation; Termination for Cause. If Executive's employment with the Company terminates (i) voluntarily by Executive other than for Good Reason during the Change of Control Period, or (ii) for Cause by the Company, then Executive shall not be entitled to receive any payment other than accrued but unpaid vacation, expense reimbursements, wages, and other benefits due to Executive under any Company's established employee plans, policies, and arrangements that provide benefits other than in the nature of severance or separation pay ("***Accrued Compensation***").

(b) Involuntary Termination other than for Cause outside of the Change of Control Period. If, outside of the Change of Control Period, the Company terminates Executive's employment with the Company other than for Cause (excluding by reason of death or Disability), then subject to Section 6 below and in addition to any Accrued Compensation, Executive shall receive the following:

(i) Non-COC Severance Payment. Executive shall be paid an amount equal to 1.0x the sum of (A) Executive's base salary rate, as then in effect, plus (B) (i) if Executive has been employed with the Company for at least one year as of the date of Executive's termination of employment, the average of performance bonuses paid to Executive for each year Executive was employed by the Company during the 3-year period immediately preceding the date of Executive's termination of employment or (ii) if Executive has been employed with the Company for less than one year as of the date of Executive's termination of employment, Executive's target annual performance bonus, in effect for the Company's fiscal year in which Executive's employment with the Company terminates (the "***Non-COC Severance***"). The Non-COC Severance will be paid, less applicable withholdings, in equal installments over a period of 12 months following the date Executive's employment with the Company terminates (the "***Non-COC Severance Period***"), with the first payment to be made on the 61st day following Executive's termination of employment (and to include any severance payments that otherwise would have been paid to Executive within the 60 days following the date of Executive's termination of employment), with any remaining payments paid in accordance with the Company's normal payroll practices for the remainder of the Non-COC Severance Period.

(ii) Non-COC Additional Bonus Payment. Executive shall be paid an amount equal to a pro-rata portion of the annual bonus paid to Executive in respect of the fiscal year which ended prior to the fiscal year that contained the date of Executive's termination of employment; provided, however, that if the duration of Executive's employment with the Company in the prior fiscal year did not entitle Executive to annual bonus for that fiscal year, such pro-rata portion instead will be determined using Executive's target annual bonus in the fiscal year that contained the date of Executive's termination of employment (the "***Non-COC Additional Bonus***"). The pro-rata portion will be based on the number of days that elapsed in the fiscal year between the first day of the fiscal year and the date of Executive's termination of employment compared to 365. This Non-COC Additional Bonus will be paid, less applicable withholdings, in equal installments over the Non-COC Severance Period, with the first payment to be made on the 6lst day following Executive's termination of employment (and to include any Non-COC Additional Bonus amount that otherwise would have been paid to Executive within the 60 days following the date of Executive's termination of employment), with any remaining payments paid in accordance with the Company's normal payroll practices for the remainder of the Non-COC Severance Period.

(iii) Continued Employee Benefits. If Executive elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***") within the time period prescribed pursuant to COBRA for Executive and Executive's eligible dependents, then the Company will reimburse Executive for the COBRA premiums for such coverage (at the coverage levels in effect immediately prior to Executive's termination) until the earlier of (A) the end of the Non-COC Severance Period or (B) the date upon which Executive and/or Executive's eligible dependents are no longer eligible for COBRA continuation coverage. The reimbursements will be made by the Company to Executive consistent with the Company's normal expense reimbursement policy. Notwithstanding the first sentence of this Section 5(b)(iii), if, at the time of Executive's termination of employment, it would result in a Company excise tax to reimburse Executive for the COBRA premiums than no such premiums will be reimbursed and if do so would not cause imposition of an excise tax, Executive will be paid a single lump sum of $12,000.

(c) Involuntary Termination other than for Cause or Voluntary Termination for Good Reason within the Change of Control Period. If, within the Change of Control Period, (i) the Company terminates Executive's employment without Cause (excluding by reason of death or Disability) or (ii) Executive terminates Executive's employment with the Company for Good Reason, then, subject to Section 6 below and in addition to any Accrued Compensation, Executive shall receive the following severance from the Company:

(i) COC Severance Payment. Executive shall be paid an amount equal to 2.0x the sum of (A) Executive's base salary rate, as then in effect, plus (B) (i) if Executive has been employed with the Company for at least one year as of the date of Executive's termination of employment, the average of the performance bonuses paid to Executive for each year Executive was employed by the Company during the 3-year period immediately preceding the date of Executive's termination of employment or (ii) if Executive has been employed with the Company for less than one year as of the date of Executive's termination of employment, Executive's target annual performance bonus, in effect for the Company's fiscal year in which

Executive's employment with the Company terminates (the "***COC Severance***"). The COC Severance will be paid, less applicable withholdings, in a lump sum on the 61st day following Executive's termination of employment. For the avoidance of doubt, if (x) Executive incurred a termination prior to a Change of Control that qualifies Executive for severance payments under Section 5(b)(i) above; and (y) a Change of Control occurs within six months following Executive's termination of employment that qualifies Executive for the superior benefits under this Section 5(c)(i), then Executive shall be entitled to a lump-sum payment of the amount calculated under this Section 5(c)(i), less amounts already paid under Section 5(b)(i) above.

(ii) COC Additional Bonus Payment. Executive shall be paid an amount equal to a pro-rata portion of the annual performance bonus that would have been paid to Executive had Executive been employed by the Company for the entire fiscal year that contained the date of Executive's termination of employment, based on actual performance for such fiscal year (and assuming that any performance objectives that are based on individual performance are achieved at target levels) (the "***COC Additional Bonus***"). This COC Bonus Severance will be paid in a lump sum, less applicable withholdings, at the same time as annual performance bonuses are paid to other Company executives. For the avoidance of doubt, if (x) Executive incurred a termination prior to a Change of Control that qualifies Executive for severance payments under Section 5(a)(ii) above; and (y) a Change of Control occurs within six months following Executive's termination of employment that qualifies Executive for superior benefits under this Section 5(c)(ii), then Executive shall be entitled to a lump-sum payment of the amount calculated under this Section 5(c)(ii), less amounts already paid under Section 5(b)(ii) above, but in no case less than $0.

(iii) Equity Compensation Acceleration. 100% of Executive's then unvested outstanding stock options, restricted stock units and other Company equity compensation awards, including any equity awards transferred to Executive's estate planning vehicles (the "***Equity Compensation Awards***") shall immediately vest and become exercisable. In the case of equity awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at target levels. Any Company stock options and stock appreciation rights shall thereafter remain exercisable following Executive's employment termination for the period prescribed in the respective option and stock appreciation right agreements.

(iv) Continued Employee Benefits. If Executive elects continuation coverage pursuant to the COBRA within the time period prescribed pursuant to COBRA for Executive and Executive's eligible dependents, then the Company will reimburse Executive for the COBRA premiums for such coverage (at the coverage levels in effect immediately prior to Executive's termination) until the earlier of (A) the end of 12 months or (B) the date upon which Executive and/or Executive's eligible dependents are no longer eligible for COBRA continuation coverage. The reimbursements will be made by the Company to Executive consistent with the Company's normal expense reimbursement policy. Notwithstanding the first sentence of this Section 5(c)(iv), if, at the time of Executive's termination of employment, it would result in a Company excise tax to reimburse Executive for the COBRA premiums than no such premiums will be reimbursed and if do so would not cause imposition of an excise tax, Executive will be paid a single lump sum of $24,000.

(d) Termination for Death or Disability. If Executive's employment is terminated as a result of Executive's Disability or death, Executive (or Executive's estate) shall not be entitled to receive any payment other than Accrued Compensation.

(e) Exclusive Remedy. In the event of a termination of Executive's employment, the provisions of Section 5 are intended to be and are exclusive an in lieu of any other rights or remedies to which Executive or the Company otherwise may be entitled, whether at law, tort, or contract, in equity, or under this Agreement (other than the payment of Accrued Compensation). For the avoidance of doubt, Executive shall in no circumstances be entitled to both benefits pursuant to Section 5(b) and the benefits pursuant to Section 5(c), except as specifically set out in Section 5(c). Executive will be entitled to no benefits, compensation, or other payments or rights upon a termination of employment other than those benefits expressly set forth in Section 5 of this Agreement.

6. Conditional Nature of Severance Payments and Benefits.

(a) Release of Claims Agreement. Notwithstanding anything to the contrary in this Agreement, the Executive shall not be entitled to any severance payments or benefits under Section 5, unless the Executive executes and does not revoke the release of claims in substantially the form attached hereto as Exhibit A (the "***Release***"), and such release becomes effective and irrevocable within sixty (60) days following the Date of Termination (the "***Release Deadline***"). If the Release does not become effective and irrevocable by the Release Deadline, Executive shall forfeit any right to severance payments or benefits under this Agreement. In no event shall severance payments or benefits be paid or provided until the Release actually becomes effective and irrevocable. Notwithstanding anything to the contrary in Section 5, the payments due under Section 5 shall be payable commencing on the Company's first payroll date occurring on or after the 60th day following the Date of Termination, or if later, such time as required by Sections 22 and 23 below (the "***First Payroll Date***"), and any amounts that would otherwise have been paid pursuant to such Section 5 prior to the First Payroll Date shall be paid in a lump-sum on the First Payroll Date.

(b) Restrictive Covenants. . Executive's receipt of any payments or benefits under Section 5 shall be subject to Executive continuing to comply with the terms of the Restrictive Covenants set forth in Section 7 (collectively, the "***Restrictive Covenants***").

7. Restrictive Covenants.

(a) Covenant Not to Solicit Employees. To the fullest extent permitted under applicable law, Executive agrees that during the Restricted Period, Executive will not directly or indirectly engage in the following conduct, nor will Executive aid, abet, assist, encourage, or influence others to do so: Induce or attempt to induce, solicit or attempt to solicit, or encourage or attempt to encourage, in any capacity, on Executive's behalf or on behalf of any other firm, person or entity, any employee of the Company with whom you had Material Contact while employed by the Company, to terminate their employment relationship with the Company to work in or for a Restricted Business. Executive agrees that nothing in this Section shall affect his/her continuing obligations under this Agreement during and after the Restricted Period, including, without limitation, Executive's obligations under the Confidentiality and Non-Disclosure Agreement section in this Agreement.

(b) Covenant Not to Solicit Customers. During the Restricted Period, Executive will not directly or indirectly engage in the following conduct, nor will Executive aid, abet, assist, encourage, or influence others to do so: Induce or attempt to induce, solicit or attempt to solicit, or encourage or attempt to encourage, in any capacity, on Executive's behalf or on behalf of any other firm, person, or entity, any Customer with whom you had Material Contact during the last six (6) months of your employment with the Company to terminate a contract with the Company or to enter into a contract with another company. Executive acknowledges and agrees that (i) the names, addresses, product specifications, pricing, and information regarding Customers and the Company, are the confidential and proprietary information of the Company (collectively, "***Proprietary Information***"); and (ii) Executive shall not, nor shall it permit any other person or entity within its control, to sell, disclose, or otherwise disseminate Proprietary Information (each, "***Improper Disclosure***"). Executive promises not to engage in any Improper Disclosure during or after his/her employment with the Company.

(c) Covenant Not to Compete. To the maximum extent permitted under applicable law, during the Restricted Period, Executive shall not, in any manner, directly or indirectly, in the Restricted Territory perform the same or substantially similar job duties that you performed for the Company on behalf of any business, person, firm, corporation, partnership, limited liability company, governmental or private entity, or any other entity of whatever kind, engaged in the Restricted Business.

Nothing contained in this Agreement shall prohibit Executive from being a passive owner of not more than two percent (2%) of the outstanding stock of any class of a corporation, any securities of which are publicly traded, so long as Executive has no active participation in the business of such corporation.

During the Restricted Period, Executive shall communicate the contents of this Agreement to any person (including any business) that Executive intends to be retained or employed by, associated with, or represent and which Executive knows is engaged in the Restricted Business in the Restricted Territory.

(d) Tolling of Covenants. If a court of competent jurisdiction determines that Executive has violated any of Executive's obligations under this Agreement, then the Restricted Period will automatically be extended by a period of time equal in length to the period during which such violation or violations occurred.

(e) Reasonableness of Covenants. Executive acknowledges and understands that the covenants of Executive under this Agreement are limited to the extent necessary to protect the legitimate business interests of the company, including the loss of goodwill, unfair competition and to preserve the Company's Confidential Information. Executive expressly acknowledges and agrees that the respective covenants and agreements contained herein are reasonable as to both scope and time.

EXECUTIVE ACKNOWLEDGES AND UNDERSTANDS THAT HIS OR HER STRICT COMPLIANCE WITH THE COVENANTS HEREUNDER IS A MATERIAL CONDITION OF THIS AGREEMENT, AND THAT THE COMPANY WOULD NOT HAVE ENGAGED, OR CONTINUED TO ENGAGE, EXECUTIVE WITHOUT THIS AGREEMENT.

(f) Construction of this Section. In the event the terms of this Section 7 shall be determined by any court of competent jurisdiction to be unenforceable by reason of its extending for too great a period of time or over too great a geographical area or by reason of its being too extensive in any other respect, it will be interpreted to extend only over the maximum period of time for which it may be enforceable, and/or over the maximum geographical area as to which it may be enforceable and/or to the maximum extent in all other respects as to which it may be enforceable, all as determined by such court in such action.

8. Confidentiality and Non-Disclosure Agreement.

(a) Covenant to Safeguard Confidential Information. In connection with Executive's Services hereunder, Executive may receive or have access to Confidential Information and Confidential Materials. Executive acknowledges and agrees that:

(i) All Confidential Information shall remain the sole property of the Company;

(ii) All Confidential Information belonging to the Company is valuable, special and unique to the Company's business, that the Company's business depends upon such Confidential Information, and that the Company wishes to protect such Confidential Information by keeping it confidential for the use and benefit of the Company;

(iii) Unless Executive is engaging in Protected Activity, as described below in Section 8(e), Executive shall keep all Confidential Information confidential and will not, without the prior written consent of the Company's Chief Executive Officer or General Counsel, disclose (whether directly or through some other person or entity), in whole or in part, and will not use such information, directly or indirectly, for any purpose other than as expressly allowed by the Company;

(iv) Unless Executive is engaging in Protected Activity, as described below in Section 8(e), Executive shall not use the Company's Confidential Information for Executive's direct or indirect benefit or for the direct or indirect benefit of any person or entity other than the Company;

(v) Unless Executive is engaging in Protected Activity, as described below in Section 8(e), Executive shall not aid, encourage, or allow any other person or entity to use the Company's Confidential Information without authorization;

(vi) Executive shall use reasonable and diligent efforts to protect the confidentiality of the Company's Confidential Information;

(vii) Unless Executive is engaging in Protected Activity, as described below in Section 8(e), Executive shall use the Company's Confidential Information solely to fulfill the duties of Executive's employment relationship with the Company and not otherwise to use such information for Executive's benefit or the benefit of others;

(viii) Executive shall not use, view, or access Confidential Information where it can be seen or viewed by unauthorized persons, and not to leave such information or materials where they can be seen or accessed by unauthorized persons;

(ix) Executive shall notify the Company if Executive becomes aware of any loss, misuse, wrongful disclosure, or other unauthorized access of the Company's Confidential Information by any person;

(x) Executive shall take all other reasonable steps necessary, or reasonably requested by the Company, to safeguard the Company's Confidential Information from unauthorized disclosure or use; and

(xi) Executive shall not disclose to the Company any trade secrets or confidential information of party to whom Executive owes a duty of confidentiality.

(b) Permission to Notify. Executive authorizes the Company to notify others, including (without limitation) the Executive's current or future clients, of the terms of this Agreement and the Executive's covenants and obligations hereunder.

(c) Return of Information. Upon the request of the Company, or upon the termination of Executive's employment with the Company, Executive shall deliver promptly (and in no event later than two (2) business days after termination) to the Company all Confidential Information and other documents or materials belonging to the Company (including all copies thereof), and all other property belonging to the Company, which are in Executive's possession, custody or control.

(d) Notice of Compelled Disclosure. In the event that Executive or anyone to whom Executive transmits any Confidential Information ("***Compelled Person***") becomes legally compelled (by oral questions, interrogatories, requests for information or documents, subpoena, civil investigative demand, or other similar judicial or other compulsory process) to disclose any of the Confidential Information, such Compelled Person will provide the Company with prompt written notice so that it may seek a protective order or other appropriate remedy to protect and preserve the confidentiality of such Confidential Information and/or waive compliance with the provisions of this Agreement. In the event that such a protective order or other remedy is not obtained, or compliance with the provisions of this Agreement is waived, Executive shall disclose or furnish only that portion of the Confidential Information that Executive is legally required to produce and will exercise his or her best efforts to obtain reliable assurance that the Confidential Information will be kept confidential to the greatest extent possible. This provision shall not restrict an Executive who is requested by a law enforcement agency not to provide such notice to the Company, nor does it limit Executive from engaging in Protected Activity, as defined below in Section 8(e).

(e) Protected Activity Not Prohibited. Nothing in this Agreement limits or prohibits Executive from filing a charge or complaint with, or otherwise communicating or cooperating with or participating in any investigation or proceeding that may be conducted by, any federal, state or local government agency or commission, including the Securities and Exchange Commission, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, and the National Labor Relations Board ("***Government Agencies***"), including disclosing documents or other information as permitted by law, without giving notice to, or receiving authorization from, the Company. Notwithstanding, in making any such disclosures or communications, Executive must take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Company Confidential Information to any parties other than the Government Agencies. Executive shall not be held criminally or civilly liable under any U.S. federal or state trade secret law for the disclosure of a trade secret that is made (i) in confidence to a U.S. federal, state, or local government office or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (ii) in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose a trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order. Except as otherwise provided in this paragraph or under applicable law, Executive is not permitted to disclose the Company's attorney-client privileged communications or attorney work product or trade secrets.

9. Remedies for Breach of the Covenants.

Executive recognizes that the Company's business interest in maintaining the confidentiality of its Confidential Information, its relationships and goodwill with its customers, and the stability of its work force, is so great that the remedy at law for Executive's breach or threatened breach of the covenants contained in this Agreement may be an inadequate remedy. Executive agrees that, in the event of a breach or threatened breach by Executive of any of the covenants contain in this Agreement, a court of competent jurisdiction may issue a restraining order or an injunction against Executive, restraining or enjoining Executive from engaging in conduct or actions that violate the said covenant. In addition, the Company shall be entitled to any and all other remedies available to the Company at law or in equity, and no action by the Company in pursuing a given remedy shall constitute an election to forego other remedies.

10. Covenant of Ownership and Disclosure of Developments.

(a) Employment Inventions. Executive agrees to promptly disclose to the Company the existence, use, and/or manner of operation of any and all Employment Inventions. Executive acknowledges and agrees that all Employment Inventions are the sole and exclusive property of the Company. Executive hereby assigns to the Company any and all copyrights, patent rights, trade secrets, and other rights that Executive may have in any Employment Invention. Executive agrees to take all actions reasonably requested by the Company, both during and after the term of Executive's employment, to assign to the Company and to establish, perfect, exercise or protect the Company's rights in any Employment Inventions or title thereto, including without limitation, assisting in obtaining or registering copyrights, patents, trademarks or similar intellectual property rights and executing assignments to the Company. If the Company is unable, because of Executive's mental or physical incapacity, geographic distance or for any other reason, to obtain Executive's approval or signature on any document necessary or useful to claim, secure, extend, protect or enforce any right in intellectual property to which the Company has a reasonable claim, then Executive hereby appoints the Company and its duly authorized officers as Executive's agent and attorney-in-fact to act for Executive for the purpose of accomplishing such act with the same legal force and effect as if executed by Executive. Executive will not incorporate any inventions, discoveries, ideas, original works of authorship, developments, improvements, trade secrets and other proprietary information or intellectual property rights owned by any third party into any Invention without the Company's prior written permission.

(c) Pre-Existing Inventions. Executive will inform the Company in writing prior to incorporating any Pre-Existing Inventions into any Invention or otherwise utilizing any such Pre-Existing Inventions in the course of Executive's employment with the Company; and the Company is hereby granted a nonexclusive, royalty-free, perpetual, irrevocable, transferable worldwide license (with the right to grant and authorize sublicenses) to make, have made, use, import, offer for sale, sell, reproduce, distribute, modify, adapt, prepare derivative works of, display, perform, and otherwise exploit such Pre-Existing Inventions, without restriction, including, without limitation, as part of or in connection with such Invention, and to practice any method related thereto.

11. Arbitration and Equitable Relief.

(a) Arbitration. IN CONSIDERATION OF EXECUTIVE'S EMPLOYMENT WITH THE COMPANY, ITS PROMISE TO ARBITRATE ALL EMPLOYMENT-RELATED DISPUTES AND EXECUTIVE'S RECEIPT OF THE COMPENSATION, PAY RAISES AND OTHER BENEFITS PAID TO ME BY THE COMPANY, AT PRESENT AND IN THE FUTURE, EXECUTIVE AGREES THAT ANY AND ALL CONTROVERSIES, CLAIMS, OR DISPUTES WITH ANYONE (INCLUDING THE COMPANY AND ANY EMPLOYEE, OFFICER, DIRECTOR, SHAREHOLDER OR BENEFIT PLAN OF THE COMPANY, IN THEIR CAPACITY AS SUCH OR OTHERWISE), ARISING OUT OF, RELATING TO, OR RESULTING FROM MY EMPLOYMENT WITH THE COMPANY OR THE TERMINATION OF MY EMPLOYMENT WITH THE COMPANY, INCLUDING ANY BREACH OF THIS AGREEMENT, SHALL BE SUBJECT TO BINDING ARBITRATION UNDER THE ARBITRATION PROVISIONS SET FORTH IN THE UTAH UNIFORM ARBTITRATION ACT (THE "***RULES***") AND PURSUANT TO UTAH LAW. THE FEDERAL ARBITRATION ACT SHALL CONTINUE TO APPLY WITH FULL FORCE AND EFFECT NOTWITHSTANDING THE APPLICATION OF PROCEDURAL RULES SET FORTH IN THE ACT. DISPUTES THAT I AGREE TO ARBITRATE, AND THEREBY AGREE TO WAIVE ANY RIGHT TO A TRIAL BY JURY, INCLUDE ANY STATUTORY CLAIMS UNDER LOCAL, STATE, OR FEDERAL LAW, INCLUDING, BUT NOT LIMITED TO, CLAIMS UNDER TITLE VII OF THE CIVIL RIGHTS ACT OF 1964, THE CIVIL RIGHTS ACT OF 1991, THE AMERICANS WITH DISABILITIES ACT OF 1990, THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967, THE OLDER WORKERS BENEFIT PROTECTION ACT, THE WORKER ADJUSTMENT AND RETRAINING NOTIFICATION ACT, THE FAIR CREDIT REPORTING ACT, THE EMPLOYEE RETIREMENT INCOME SECURITY ACT OF 1974, THE FAMILY AND MEDICAL LEAVE ACT, THE UTAH ANTIDISCRIMINATION ACT, CLAIMS OF HARASSMENT, DISCRIMINATION AND WRONGFUL TERMINATION, AND ANY STATUTORY OR COMMON LAW CLAIMS, EXCEPT AS PROHIBITED BY LAW. NOTWITHSTANDING THE FOREGOING, I UNDERSTAND THAT NOTHING IN THIS AGREEMENT CONSTITUTES A WAIVER OF MY RIGHTS UNDER SECTION 7 OF THE NATIONAL LABOR RELATIONS ACT OR THE SARBANES-OXLEY ACT, INCLUDING ANY RIGHTS PROHIBITING COMPULSORY ARBITRATION. SIMILARLY, NOTHING IN THIS AGREEMENT PROHIBITS ME FROM ENGAGING IN PROTECTED ACTIVITY, AS SET FORTH

BELOW. EXECUTIVE FURTHER UNDERSTANDS THAT THIS AGREEMENT TO ARBITRATE ALSO APPLIES TO ANY DISPUTES THAT THE COMPANY MAY HAVE WITH EXEUCTIVE. EXECUTIVE AGREES THAT HE MAY ONLY COMMENCE AN ACTION IN ARBITRATION, OR ASSERT COUNTERCLAIMS IN AN ARBITRATION, ON AN INDIVIDUAL BASIS AND, THUS, HEREBY WAIVE HIS RIGHT TO COMMENCE OR PARTICIPATE IN ANY CLASS OR COLLECTIVE ACTION(S) AGAINST THE COMPANY, AS PERMITTED BY LAW.

(b) Procedure. EXEUCTIVE AGREES THAT ANY ARBITRATION WILL BE ADMINISTERED BY JUDICIAL ARBITRATION & MEDIATION SERVICES, INC. ("***JAMS***"), PURSUANT TO ITS EMPLOYMENT ARBITRATION RULES & PROCEDURES (THE "***JAMS RULES***"), WHICH ARE AVAILABLE AT http://www.jamsadr.com/rules-employment-arbitration/ AND FROM HUMAN RESOURCES. EXEUCTIVE UNDERSTANDS THAT THE PARTIES TO THE ARBITRATION SHALL EACH PAY AN EQUAL SHARE OF THE COSTS AND EXPENSES OF SUCH ARBITRATION, EXCEPT AS PROHIBITED BY LAW, AND UNDERSTAND THAT EACH PARTY SHALL SEPARATELY PAY FOR ITS RESPECTIVE ATTORNEYS' FEES AND COSTS. EXECUTIVE AGREES THAT THE ARBITRATOR SHALL HAVE THE POWER TO DECIDE ANY MOTIONS BROUGHT BY ANY PARTY TO THE ARBITRATION, INCLUDING MOTIONS FOR SUMMARY JUDGMENT AND/OR ADJUDICATION, AND MOTIONS TO DISMISS, PRIOR TO ANY ARBITRATION HEARING. EXECUTIVE AGREES THAT THE ARBITRATOR SHALL ISSUE A WRITTEN DECISION ON THE MERITS. EXECUTIVE ALSO AGREES THAT THE ARBITRATOR SHALL HAVE THE POWER TO AWARD ANY REMEDIES AVAILABLE UNDER APPLICABLE LAW. EXECUTIVE AGREES THAT THE DECREE OR AWARD RENDERED BY THE ARBITRATOR MAY BE ENTERED AS A FINAL AND BINDING JUDGMENT IN ANY COURT HAVING JURISDICTION THEREOF. EXECUTIVE AGREES THAT THE ARBITRATOR SHALL ADMINISTER AND CONDUCT ANY ARBITRATION IN ACCORDANCE WITH UTAH LAW, INCLUDING THE UTAH RULES OF CIVIL PROCEDURE AND THE UTAH RULES OF EVIDENCE, AND THAT THE ARBITRATOR SHALL APPLY SUBSTANTIVE AND PROCEDURAL UTAH LAW TO ANY DISPUTE OR CLAIM, WITHOUT REFERENCE TO RULES OF CONFLICT OF LAW. TO THE EXTENT THAT THE JAMS RULES CONFLICT WITH UTAH LAW, UTAH LAW SHALL TAKE PRECEDENCE. I AGREE THAT THE DECISION OF THE ARBITRATOR SHALL BE IN WRITING. I AGREE THAT ARBITRATION UNDER THIS AGREEMENT SHALL BE CONDUCTED IN UTAH COUNTY, UTAH.

(c) Remedy. EXCEPT AS PROVIDED BY THE RULES AND THIS AGREEMENT, ARBITRATION SHALL BE THE SOLE, EXCLUSIVE AND FINAL REMEDY FOR ANY DISPUTE BETWEEN EXECUTIVE AND THE COMPANY. ACCORDINGLY, EXCEPT AS PROVIDED FOR BY THE RULES AND THIS AGREEMENT, NEITHER EXECUTIVE NOR THE COMPANY WILL BE PERMITTED TO PURSUE COURT ACTION REGARDING CLAIMS THAT ARE SUBJECT TO ARBITRATION.

(d) Availability of Injunctive Relief. EXECUTIVE AGREES THAT ANY PARTY MAY ALSO PETITION THE COURT FOR TEMPORARY AND/OR PRELIMINARY INJUNCTIVE RELIEF WHERE EITHER PARTY ALLEGES OR CLAIMS A VIOLATION OF THE AT-WILL EMPLOYMENT, CONFIDENTIAL INFORMATION, INVENTION ASSIGNMENT, AND ARBITRATION AGREEMENT BETWEEN EXECUTIVE AND THE COMPANY OR ANY OTHER AGREEMENT REGARDING TRADE SECRETS, INTELLECTUAL PROPERTY, CONFIDENTIAL INFORMATION, PROPRIETARY INFORMATION, NONCOMPETITION OR NONSOLICITATION. THE PARTIES UNDERSTAND THAT ANY BREACH OR THREATENED BREACH OF SUCH AN AGREEMENT WILL CAUSE IRREPARABLE INJURY AND THAT MONEY DAMAGES WILL NOT PROVIDE AN ADEQUATE REMEDY THEREFOR AND BOTH PARTIES HEREBY CONSENT TO THE ISSUANCE OF AN INJUNCTION WITHOUT POSTING OF A BOND. IN THE EVENT EITHER

PARTY SEEKS TEMPORARY AND/OR PRELIMINARY INJUNCTIVE RELIEF, THE PREVAILING PARTY SHALL BE ENTITLED TO RECOVER REASONABLE COSTS AND ATTORNEYS' FEES WITHOUT REGARD FOR THE PREVAILING PARTY IN THE FINAL JUDGMENT, IF ANY. SUCH ATTORNEYS' FEES AND COSTS SHALL BE RECOVERABLE ON WRITTEN DEMAND AT ANY TIME, INCLUDING, BUT NOT LIMITED TO, PRIOR TO ENTRY OF A FINAL JUDGMENT, IF ANY, BY THE COURT, AND MUST BE PAID WITHIN THIRTY (30) DAYS AFTER DEMAND OR ELSE SUCH AMOUNTS SHALL BE SUBJECT TO THE ACCRUAL OF INTEREST AT A RATE EQUAL TO.

(e) Administrative Relief. THE PARTIES UNDERSTAND THAT THIS AGREEMENT DOES NOT PROHIBIT EITHER PARTY FROM PURSUING AN ADMINISTRATIVE CLAIM WITH A LOCAL, STATE, OR FEDERAL ADMINISTRATIVE BODY OR GOVERNMENT AGENCY THAT IS AUTHORIZED TO ENFORCE OR ADMINISTER LAWS RELATED TO EMPLOYMENT, INCLUDING, BUT NOT LIMITED TO, THE UTAH LABOR COMMISSION, THE EQUAL EMPLOYMENT OPPORTUNITY COMMISSION, THE SECURITIES AND EXCHANGE COMMISSION, THE NATIONAL LABOR RELATIONS BOARD, OR THE WORKERS' COMPENSATION BOARD. THIS AGREEMENT DOES, HOWEVER, PRECLUDE ME FROM PURSUING COURT ACTION REGARDING ANY SUCH CLAIM, EXCEPT AS PERMITTED BY LAW.

(f) Voluntary Nature of Agreement. THE PARTIES ACKNOWLEDGE AND AGREE THAT THEY ARE EXECUTING THIS AGREEMENT VOLUNTARILY AND WITHOUT ANY DURESS OR UNDUE INFLUENCE. THE PARTIES FURTHER ACKNOWLEDGE AND AGREE THAT THEY HAVE CAREFULLY READ THIS AGREEMENT AND THAT THEY HAVE ASKED ANY QUESTIONS NEEDED FOR THEM TO UNDERSTAND THE TERMS, CONSEQUENCES, AND BINDING EFFECT OF THIS AGREEMENT AND FULLY UNDERSTAND IT, INCLUDING THAT THEY ARE WAIVING THEIR RIGHT TO A JURY TRIAL. FINALLY, THE PARTIES AGREE THAT THEY HAVE EACH BEEN PROVIDED AN OPPORTUNITY TO SEEK THE ADVICE OF AN ATTORNEY OF THEIR CHOICE BEFORE SIGNING THIS AGREEMENT.

12. Submission to Jurisdiction.

Each Party irrevocably consents and agrees that any action, proceeding, or other litigation by or against any other Party or Parties with respect to any claim or cause of action based upon or arising out of or related to this Agreement or the transactions contemplated hereby, shall be brought and tried exclusively in the state and federal courts located in the City of Salt Lake, County of Salt Lake, in the State of Utah, and any such legal action or proceeding must be removed to the aforesaid courts. By execution and delivery of the Agreement, each Party accepts, for itself and in respect of its property, generally and unconditionally, the exclusive jurisdiction of the aforesaid courts. Each Party hereby irrevocably waives (a) any objection which it may now or hereafter have to the laying of venue with respect any such action, proceeding, or litigation arising out of or in connection with this Agreement or the transactions contemplated hereby brought in the aforesaid courts, and (b) any right to stay or dismiss any such action, proceeding, or litigation brought before the aforesaid courts on the basis of forum *non-conveniens*. Each Party further agrees that personal jurisdiction over it may be affected by service of process by certified mail, postage prepaid, addressed as provided in Section 16 of this Agreement, and when so made shall be as if served upon it personally within the State of Utah.

13. Binding on Successors.

This Agreement shall be binding upon and inure to the benefit of the Company, the Executive and their respective successors, assigns, personnel and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. The Company may assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company. The Executive may not assign the Executive's rights or obligations under this Agreement other than the Executive's rights to payments hereunder, which may only be assigned by will or the operation of the laws of descent and distribution.

14. Governing Law.

This Agreement shall be governed, construed, interpreted and enforced in accordance with the substantive laws of the State of Utah, without reference to the principles of conflicts of law of the State of Utah or any other jurisdiction, and where applicable, the laws of the United States.

15. Validity.

The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

16. Notices.

All notices, requests, demands, and other communications required or permitted to be given under this Agreement by any Party shall be in writing delivered, if to the Company, to the address set forth below, and if to Executive, to the address set forth on the signature page hereto, or to such other address as any Party may designate from time to time by written notice to all other Parties. Each such notice, request, demand, or other communication shall be deemed given and effective, as follows: (i) if sent by hand delivery, upon delivery; (ii) if sent by first-class U.S. Mail, postage prepaid, upon the earlier to occur of receipt or three (3) days after deposit in the U.S. Mail; (iii) if sent by a recognized prepaid overnight courier service, one (1) day after the date it is given to such service; (iv) if sent by facsimile, upon receipt of confirmation of successful transmission by the facsimile machine; and (v) if sent by email, upon acknowledgement of receipt by the recipient.

VIVINT SOLAR, INC.

Address:	1800 West Ashton Boulevard
City, State Zip:	Lehi, Utah 84043
Attention:	David Bywater Chief Executive Officer

WITH COPY TO:

VIVINT SOLAR, INC.

Address:	1800 West Ashton Boulevard
City, State Zip:	Lehi, Utah 84043
Attention:	Legal Department

17. Counterparts.

This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement.

18. Entire Agreement.

The terms of this Agreement are intended by the parties to be the final expression of their agreement with respect to the employment of the Executive by the Company and may not be contradicted by evidence of any prior or contemporaneous agreement. The parties further intend that this Agreement shall constitute the complete and exclusive statement of its terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement. The parties agree that the Prior Employment Agreement is hereby terminated, and this Agreement replaces and supersedes the Prior Employment Agreement in its entirety.

19. Amendments; Waivers.

This Agreement may not be modified, amended, or terminated except by an instrument in writing, signed by the Executive and the Chief Operating Officer. By an instrument in writing similarly executed, the Executive or the Company may waive compliance by the other party or parties with any provision of this Agreement that such other party was or is obligated to comply with or perform, provided, however, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

20. No Inconsistent Actions.

The parties hereto shall not voluntarily undertake or fail to undertake any action or course of action inconsistent with the provisions or essential intent of this Agreement. Furthermore, it is the intent of the parties hereto to act in a fair and reasonable manner with respect to the interpretation and application of the provisions of this Agreement.

21. Claw-back.

All compensation received by Executive shall be subject to the provisions of any claw-back policy implemented by the Company to comply with applicable law, regulation or stock exchange rule, including, without limitation, any claw-back policy adopted to comply with the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder.

22. Section 409A.

(a) Notwithstanding anything to the contrary in this Agreement, no payment or benefit to be paid or provided to Executive, if any, pursuant to this Agreement that, when considered together with any other severance payments or separation benefits, is considered deferred compensation under Section 409A of the Internal Revenue Code of 1986, as amended (the "***Code***"), and the final regulations and any guidance promulgated thereunder ("***Section 409A***") (together, the "***Deferred Payments***") shall be paid or otherwise provided until Executive has a "separation from service" within the meaning of Section 409A. Similarly, no severance payable to Executive, if any, pursuant to this Agreement that otherwise would be exempt from Section 409A pursuant to Treasury Regulation Section l.409A-l(b)(9) shall be payable until Executive has a "separation from service" within the meaning of Section 409A.

(b) It is intended that none of the payments under this Agreement will constitute "Deferred Payments" but rather will be exempt from Section 409A as a payment that would fall within the "short-term deferral period" as described in Section 22(d) below or resulting from an involuntary separation from service as described in Section 22(c)(e) below. However, any severance payments or benefits under this Agreement that would be considered Deferred Payments shall be paid on, or, in the case of installments, shall not commence until, the 61st day following Executive's separation from service, or, if later, such time as required by Section 22(c). Except as required by Section 22(c), any installment payments that would have been made to Executive during the 60 day period immediately following Executive's separation from service but for the preceding sentence shall be paid to Executive on the 61st day following Executive's separation from service and the remaining payments shall be made as provided in this Agreement.

(c) Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409 A at the time of Executive's termination (other than due to death), then the Deferred Payments, if any, that are payable within the first six months following Executive's separation from service, shall become payable on the first payroll date that occurs on or after the date six months and one day following the date of Executive's separation from service. All subsequent Deferred Payments, if any, shall be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following Executive's separation from service, but before the six month anniversary of the separation from service, then any payments delayed in accordance with this paragraph shall be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Payments shall be payable in accordance with the payment schedule applicable to each payment or benefit. Each payment and benefit payable under this Agreement is intended to constitute a separate payment under Section l.409A-2(b)(2) of the Treasury Regulations.

(d) Any amount paid under this Agreement that satisfies the requirements of the "short-term deferral" rule set forth in Section l.409A-l (b)(4) of the Treasury Regulations shall not constitute Deferred Payments for purposes of Section 22(a) above.

(e) Any amount paid under this Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to Section l.409A-l (b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit (as defined below) shall not constitute Deferred Payments for purposes of Section 22(a) above.

(f) The foregoing provisions are intended to comply with the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder shall be subject to the additional tax imposed under Section 409A, and any ambiguities herein shall be interpreted to so comply. The Company and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition before actual payment to Executive under Section 409A. In no event will the Company reimburse Executive for any tax obligations incurred by Executive as a result of the application of Section 409A.

23. Golden Parachute Excise Tax Best Results.

In the event that the severance and other benefits provided for in this agreement or otherwise payable to Executive (a) constitute "parachute payments" within the meaning of Code Section 280G and (b) would be subject to the excise tax imposed by Code Section 4999, then such benefits shall be either:

(a) delivered in full, or
(b) delivered as to such lesser extent which would result in no portion of such severance benefits being subject to excise tax under Section 4999 of the Code,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income and employment taxes and the excise tax imposed by Code Section 4999, results in the receipt by Executive, on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under Code Section 4999. Unless the Company and Executive otherwise agree in writing, the determination of Executive's excise tax liability and the amount required to be paid under this

Section 5 shall be made in writing by a nationally recognized certified professional services firm selected by the Company, the Company's legal counsel or such other person or entity to which the parties mutually agree (the "***Firm***"). For purposes of making the calculations required by this Section 23, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Code Sections 280G and 4999. The Company and Executive shall furnish to the Firm such information and documents as the Firm may reasonably request in order to make a determination under this Section 23. The Company shall bear all costs the Firm may reasonably incur in connection with any calculations contemplated by this Section 23. Any reduction in payments and/or benefits required by this Section 23 shall occur in the following order: (i) reduction of cash payments; (ii) cancellation of awards granted "contingent on a change in ownership or control" (within the meaning of Code Section 280G); (iii) cancellation of accelerated vesting of equity awards; or (iv) reduction of employee benefits. In the event that acceleration of vesting of equity award compensation is to be reduced, such acceleration of vesting will be cancelled in the reverse order of the date of grant of Executive's equity awards. If two or more equity compensation awards are granted on the same date, each award shall be reduced on a pro-rata basis.

24. Survival.

The provisions of this Agreement shall survive the termination of Executive's employment with the Company.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the respective dates set forth below.

COMPANY	VIVINT SOLAR, INC. By: /s/ David Bywater Name: David Bywater Title: Chief Executive Officer Dated: November 6, 2017
EXECUTIVE	Chance Allred, an individual /s/ Chance Allred (Signature) Dated: November 6, 2017

EXHIBIT A
RELEASE OF CLAIMS

THIS RELEASE OF CLAIMS (this "***Agreement***") is made by and between Vivint Solar, Inc. (the "***Company***"), and ____________("***Employee***"). The Company and Employee are sometimes collectively referred to herein as the "***Parties***" and individually referred to as a "***Party***".

RECITALS

WHEREAS, Employee was employed by the Company until _______ __, 20__, when Employee's employment was terminated ("***Termination Date***");

WHEREAS, Employee signed an Executive Employment Agreement with the Company, effective as of ____________ (the "***Proprietary Rights Agreement***");

WHEREAS, in accordance with Section 5[(b)]/[(c)] of that certain Involuntary Termination Protection Agreement between the Company and Employee, effective as of _____________ (the "***Termination Agreement***"), Employee has agreed to enter into and not revoke a standard release of claims in favor of the Company as a condition to receiving the severance benefits described in the Termination Agreement; and

WHEREAS, the Parties wish to resolve any and all disputes, claims, complaints, grievances, charges, actions, petitions and demands that Employee may have against the Company and any of the Releasees (as defined below), including, but not limited to, any and all claims arising out of or in any way related to Employee's employment relationship with the Company and the termination of that relationship.

NOW THEREFORE, for good and valuable consideration, including the mutual promises and covenants made herein, the Company and Employee hereby agree as follows:

COVENANTS

1. Termination. Employee's employment with the Company terminated on the Termination Date.

2. Payment of Salary and Receipt of All Benefits. Employee acknowledges and represents that, other than the consideration to be paid in accordance with the terms and conditions of the Termination Agreement, the Company has paid or provided all salary, wages, bonuses, accrued vacation/paid time off, premiums, leaves, housing allowances, relocation costs, interest, severance, outplacement costs, fees, reimbursable expenses, commissions, draws, stock, stock options or other equity awards (including restricted stock unit awards), vesting, and any and all other benefits and compensation due to Employee and that no other reimbursements or compensation are owed to Employee.

3. Release of Claims. Employee agrees that the consideration to be paid in accordance with the terms and conditions of the Termination Agreement represents settlement in full of all outstanding obligations owed to Employee by the Company and its current and former officers, directors, employees, agents, investors, attorneys, stockholders, administrators, affiliates, benefit plans, plan administrators, insurers, trustees, divisions, and subsidiaries, and predecessor and successor corporations and assigns (collectively, the "***Releasees***"). Employee, on Employee's own behalf and on behalf of Employee's respective heirs, family members, executors, agents, and assigns, hereby and forever releases the Releasees from, and agrees not to sue concerning, or in any manner to institute, prosecute, or pursue, any claim,

complaint, charge, duty, obligation, demand, or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that Employee may possess against any of the Releasees arising from any omissions, acts, facts, or damages that have occurred up until and including the Effective Date of this Agreement, including, without limitation the following:

(a) any and all claims relating to or arising from Employee's employment relationship with the Company and the termination of that relationship;

(b) any and all claims relating to, or arising from, Employee's right to purchase, or actual purchase of shares of stock of the Company, including, without limitation, any claims for fraud, misrepresentation, breach of fiduciary duty, breach of duty under applicable state corporate law, and securities fraud under any state or federal law;

(c) any and all claims for wrongful discharge of employment; termination in violation of public policy; discrimination; harassment; retaliation; breach of contract, both express and implied; breach of covenant of good faith and fair dealing, both express and implied; promissory estoppel; negligent or intentional infliction of emotional distress; fraud; negligent or intentional misrepresentation; negligent or intentional interference with contract or prospective economic advantage; unfair business practices; defamation; libel; slander; negligence; personal injury; assault; battery; invasion of privacy; false imprisonment; conversion; and disability benefits;

(d) any and all claims for violation of any federal, state, or municipal statute, including, but not limited to, Title VII of the Civil Rights Act of 1964; the Civil Rights Act of 1991; the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990; the Equal Pay Act; the Fair Labor Standards Act; the Fair Credit Reporting Act; the Age Discrimination in Employment Act of 1967; the Older Workers Benefit Protection Act; the Employee Retirement Income Security Act of 1974; the Worker Adjustment and Retraining Notification Act; the Family and Medical Leave Act; the Sarbanes-Oxley Act of 2002; the Utah Antidiscrimination Act; the California Family Rights Act; the California Equal Pay Law; the California Unruh Civil Rights Act; the California Workers' Compensation Act; the California Labor Code; and the California Fair Employment and Housing Act; the Utah Antidiscrimination Act;

(e) any and all claims for violation of the federal, or any state, constitution;

(f) any and all claims arising out of any other laws and regulations relating to employment or employment discrimination;

(g) any claim for any loss, cost, damage, or expense arising out of any dispute over the nonwithholding or other tax treatment of any of the proceeds received by Employee as a result of this Agreement; and

(h) any and all claims for attorneys' fees and costs.

Employee agrees that the release set forth in this Section 3 (the "***Release***") shall be and remain in effect in all respects as a complete general release as to the matters released. The Release does not extend to any severance obligations due Employee under the Termination Agreement. The Release does not release claims that cannot be released as a matter of law, including, but not limited to, Employee's right to file a charge with or participate in a charge by the Equal Employment Opportunity Commission, or any other local, state, or federal administrative body or government agency that is authorized to enforce or administer laws related to employment, against the Company (with the understanding that any such filing or participation does not give Employee the right to recover any monetary damages against the Company; Employee's release of claims herein bars Employee from recovering such monetary relief from the Company). Employee represents that Employee has made no assignment or transfer of any right, claim, complaint, charge, duty, obligation, demand, cause of action, or other matter waived or released by this Section 3. Nothing in this Agreement waives Employee's (i) rights under that certain Indemnification Agreement between the Company and Employee, effective as of [DATE] (the "***Indemnification Agreement***"), or (ii) rights to indemnification or any payments under any fiduciary insurance policy, if any, provided by any act or agreement of the Company, state or federal law or policy of insurance.

4. Acknowledgment of Waiver of Claims under ADEA. Employee acknowledges that Employee is waiving and releasing any rights Employee may have under the Age Discrimination in Employment Act of 1967 ("***ADEA***") and that this waiver and release is knowing and voluntary. Employee agrees that this waiver and release does not apply to any rights or claims that may arise under the ADEA after the Effective Date of this Agreement. Employee acknowledges that the consideration given for this waiver and release Agreement is in addition to anything of value to which Employee was already entitled. Employee further acknowledges that Employee has been advised by this writing that (a) Employee should consult with an attorney *prior* to executing this Agreement; (b) Employee has at least 21 days within which to consider this Agreement; (c) Employee has 7 days following the execution of this Agreement by the parties to revoke the Agreement; (d) this Agreement shall not be effective until the revocation period has expired; and (e) nothing in this Agreement prevents or precludes Employee from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties or costs for doing so, unless specifically authorized by federal law. In the event Employee signs this Agreement and delivers it to the Company in less than the 21-day period identified above, Employee hereby acknowledges that Employee has freely and voluntarily chosen to waive the time period allotted for considering this Agreement. Employee acknowledges and understands that revocation must be accomplished by a written notification to the Chief Legal Officer of the Company that is received prior to the Effective Date.

5. Unknown Claims. Employee acknowledges that Employee has been advised to consult with legal counsel and that Employee is familiar with the principle that a general release does not extend to claims that the releaser does not know or suspect to exist in Employee's favor at the time of executing the release, which, if known by Employee, must have materially affected Employee's settlement with the releasee. Employee, being aware of this principle, agrees to expressly waive any rights Employee may have to that effect, as well as under any other statute or common law principles of similar effect.

6. No Pending or Future Lawsuits. Employee represents that Employee has no lawsuits, claims, or actions pending in Employee's name, or on behalf of any other person or entity, against the Company or any of the other Releasees. Employee also represents that Employee does not intend to bring any claims on Employee's own behalf or on behalf of any other person or entity against the Company or any of the other Releasees. Employee confirms that Employee has no knowledge of any wrongdoing involving improper or false claims against a federal or state governmental agency, or any other wrongdoing that involves Employee or any other present or former Company employees, including violations of the federal and state securities laws or the Sarbanes-Oxley Act of 2002.

7. Confidential Information. Employee reaffirms and agrees to observe and abide by the terms of the Executive Employment Agreement, specifically including the provisions therein regarding nondisclosure of the Company's trade secrets and confidential and proprietary information, which agreement shall continue in force.

8. Return of Company Property; Passwords and Password-protected Documents. Employee confirms that Employee has returned to the Company in good working order all keys, files, records (and copies thereof), equipment (including, but not limited to, computer hardware, software and printers, wireless handheld devices, cellular phones and pagers), access or credit cards, Company identification, and any other Company-owned property in Employee's possession or control. Employee further confirms that

Employee has cancelled all accounts for Employee's benefit, if any, in the Company's name, including, but not limited to, credit cards, telephone charge cards, cellular phone and/or pager accounts and computer accounts. Employee also confirms that Employee has delivered all passwords in use by Employee at the time of Employee's termination, a list of any documents that Employee created or of which Employee is otherwise aware that are password-protected, along with the password(s) necessary to access such password-protected documents.

9. No Cooperation. Employee agrees that Employee will not knowingly encourage, counsel, or assist any attorneys or their clients in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints by any third party against any of the Releasees, unless under a subpoena or other court order to do so or as related directly to the ADEA waiver in this Agreement. Employee agrees both to immediately notify the Company upon receipt of any such subpoena or court order, and to furnish, within three (3) business days of its receipt, a copy of such subpoena or other court order. If approached by anyone for counsel or assistance in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints against any of the Releasees, Employee shall state no more than that Employee cannot provide any such counsel or assistance.

10. Breach. In addition to the rights provided in the Section 11 below, Employee acknowledges and agrees that any material breach of this Agreement (unless such breach constitutes a legal action by Employee challenging or seeking a determination in good faith of the validity of the waiver herein under the ADEA), or of any provision of the Proprietary Rights Agreement, shall entitle the Company immediately to recover and/or cease providing the consideration provided to Employee under this Agreement and to obtain damages, except as provided by law, *provided, however*, that the Company shall not recover One Hundred Dollars ($100.00) of the consideration already paid pursuant to this Agreement and such amount shall serve as full and complete consideration for the promises and obligations assumed by Employee under this Agreement and the Proprietary Rights Agreement.

11. Attorneys' Fees. In the event that either Party brings an action to enforce or effect its rights under this Agreement, the prevailing Party shall be entitled to recover its costs and expenses, including the costs of mediation, arbitration, litigation, court fees, and reasonable attorneys' fees incurred in connection with such an action.

12. No Admission of Liability. Employee understands and acknowledges that this Agreement constitutes a compromise and settlement of any and all actual or potential disputed claims by Employee. No action taken by the Company hereto, either previously or in connection with this Agreement, shall be deemed or construed to be (a) an admission of the truth or falsity of any actual or potential claims or (b) an acknowledgment or admission by the Company of any fault or liability whatsoever to Employee or to any third party.

13. Noncompetition/Nonsolicitation/Nondisparagement. Employee agrees to adhere to the noncompetition, nonsolictiation, and the nondisparagement restrictions set forth in the Employment Agreement.

14. Costs. The Parties shall each bear their own costs, attorneys' fees and other fees incurred in connection with the preparation of this Agreement.

15. Arbitration. THE PARTIES AGREE THAT ANY AND ALL DISPUTES ARISING OUT OF THE TERMS OF THIS AGREEMENT, THEIR INTERPRETATION, AND ANY OF THE MATTERS HEREIN RELEASED, SHALL BE SUBJECT TO ARBITRATION IN UTAH COUNTY IN THE STATE OF UTAH, BEFORE JUDICIAL ARBITRATION & MEDIATION SERVICES ("***JAMS***"), PURSUANT TO ITS EMPLOYMENT ARBITRATION RULES & PROCEDURES ("***JAMS RULES***").

THE ARBITRATOR MAY GRANT INJUNCTIONS AND OTHER RELIEF IN SUCH DISPUTES. THE ARBITRATOR SHALL ADMINISTER AND CONDUCT ANY ARBITRATION IN ACCORDANCE WITH UTAH LAW, INCLUDING THE UTAH RULES OF CIVIL PROCEDURE, AND THE ARBITRATOR SHALL APPLY SUBSTANTIVE AND PROCEDURAL UTAH LAW TO ANY DISPUTE OR CLAIM, WITHOUT REFERENCE TO ANY CONFLICT-OF-LAW PROVISIONS OF ANY JURISDICTION. TO THE EXTENT THAT THE JAMS RULES CONFLICT WITH UTAH LAW, UTAH LAW SHALL TAKE PRECEDENCE. THE DECISION OF THE ARBITRATOR SHALL BE FINAL, CONCLUSIVE, AND BINDING ON THE PARTIES TO THE ARBITRATION. THE PARTIES AGREE THAT THE PREVAILING PARTY IN ANY ARBITRATION SHALL BE ENTITLED TO INJUNCTIVE RELIEF IN ANY COURT OF COMPETENT JURISDICTION TO ENFORCE THE ARBITRATION AWARD. THE PARTIES TO THE ARBITRATION SHALL EACH PAY AN EQUAL SHARE OF THE COSTS AND EXPENSES OF SUCH ARBITRATION, AND EACH PARTY SHALL SEPARATELY PAY FOR ITS RESPECTIVE COUNSEL FEES AND EXPENSES; PROVIDED, HOWEVER, THAT THE ARBITRATOR SHALL AWARD ATTORNEYS' FEES AND COSTS TO THE PREVAILING PARTY, EXCEPT AS PROHIBITED BY LAW. THE PARTIES HEREBY AGREE TO WAIVE THEIR RIGHT TO HAVE ANY DISPUTE BETWEEN THEM RESOLVED IN A COURT OF LAW BY A JUDGE OR JURY. NOTWITHSTANDING THE FOREGOING, THIS SECTION 15 WILL NOT PREVENT EITHER PARTY FROM SEEKING INJUNCTIVE RELIEF (OR ANY OTHER PROVISIONAL REMEDY) FROM ANY COURT HAVING JURISDICTION OVER THE PARTIES AND THE SUBJECT MATTER OF THEIR DISPUTE RELATING TO THIS AGREEMENT AND THE AGREEMENTS INCORPORATED HEREIN BY REFERENCE. SHOULD ANY PART OF THE ARBITRATION AGREEMENT CONTAINED IN THIS PARAGRAPH CONFLICT WITH ANY OTHER ARBITRATION AGREEMENT BETWEEN THE PARTIES, THE PARTIES AGREE THAT THIS ARBITRATION AGREEMENT SHALL GOVERN.

16. Authority. The Company represents and warrants that the undersigned has the authority to act on behalf of the Company and to bind the Company and all who may claim through it to the terms and conditions of this Agreement. Employee represents and warrants that Employee has the capacity to act on Employee's own behalf and on behalf of all who might claim through Employee to bind them to the terms and conditions of this Agreement. Each Party warrants and represents that there are no liens or claims of lien or assignments in law or equity or otherwise of or against any of the claims or causes of action released herein.

17. No Representations. Employee represents that Employee has had the opportunity to consult with an attorney, and has carefully read and understands the scope and effect of the provisions of this Agreement. Employee has relied upon any representations or statements made by the Company that are not specifically set forth in this Agreement.

18. Severability. In the event that any provision or any portion of any provision hereof or any surviving agreement made a part hereof becomes or is declared by a court of competent jurisdiction or arbitrator to be illegal, unenforceable, or void, this Agreement shall continue in full force and effect without said provision or portion of provision.

19. Entire Agreement. This Agreement represents the entire agreement and understanding between the Company and Employee concerning the subject matter of this Agreement and Employee's employment with and separation from the Company and the events leading thereto and associated therewith, and supersedes and replaces any and all prior agreements and understandings concerning the subject matter of this Agreement and Employee's relationship with the Company, with the exception of the Proprietary Rights Agreement, the Termination Agreement, the Indemnification Agreement, and Employee's written equity compensation agreements with the Company.

20. No Oral Modification. This Agreement may only be amended in writing signed by Employee and the Chairman of the Compensation Committee of the Board of Directors of the Company.

21. Governing Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of Utah, without regard to the choice-of-law provisions. The Utah state courts located in Utah County, Utah and/or the United States District Court for the District of Utah, located in Provo, Utah, shall have exclusive jurisdiction and venue over all controversies relating to or arising out of this Agreement. Employee hereby expressly consents to the exclusive jurisdiction and venue of the Utah state courts in Utah County, Utah and/or the United States District Court for the District of Utah for any disputes arising out of or relating to this Agreement.

22. Effective Date. Employee understands that this Agreement shall be null and void if not executed by Employee within 21 days. Each Party has seven days after that Party signs this Agreement to revoke it. This Agreement will become effective on the eighth (8th) day after Employee signed this Agreement, so long as it has been signed by the Parties and has not been revoked by either Party before that date (the "***Effective Date***").

23. Counterparts. This Agreement may be executed in counterparts and by facsimile, and each counterpart and facsimile shall have the same force and effect as an original and shall constitute an effective, binding agreement on the part of each of the undersigned.

24. Voluntary Execution of Agreement. Employee understands and agrees that Employee executed this Agreement voluntarily, without any duress or undue influence on the part or behalf of the Company or any third party, with the full intent of releasing all of Employee's claims against the Company and any of the other Releasees. Employee expressly acknowledges that:

(a) Employee has read this Agreement;

(b) Employee has been represented in the preparation, negotiation, and execution of this Agreement by legal counsel of Employee's own choice or has elected not to retain legal counsel;

(c) Employee understands the terms and consequences of this Agreement and of the releases it contains; and

(d) Employee is fully aware of the legal and binding effect of this Agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the respective dates set forth below.

COMPANY

VIVINT SOLAR, INC.

By: ______________________________

Name: ______________________________

Title: ______________________________

Dated: ______________________________

EMPLOYEE

______________, an individual

____
(Signature)

Dated:

EXHIBIT B

COMMISSION AND OVERRIDE STRUCTURE

1.0 DEFINITIONS

For purposes of this Commission Structure, the following terms shall have the following meanings:

- "***Install***", "***Installed***" or "***Installation***" – the completed installation of solar panels that count towards the company's publically reported number of megawatts deployed.

- "***Smart Home Account***" – Any installation of Vivint Smart Home packages sold by a Vivint Solar rep for which the Solar rep is paid a commission.

- "***Monthly Payday***" – the first Friday after the 10th calendar day in the month following the end of a month, quarter, or year wherein a monthly, quarterly, or annual commission is earned.

- "***Sales Dealer Agreement***" – the Sales Dealer Agreement, dated August 16, 2017, by and between Vivint Solar Developer, LLC and Vivint, Inc.

2.0 COMMISSIONS

A. Monthly Override

Beginning October 1, 2017, you will receive a monthly commission of two tenths of a cent ($0.002) for every watt that the Company Installs during each calendar month (the "***Monthly Override***"). The Monthly Override is fully and finally earned on the last day of each month and paid on the first Monthly Payday of the following calendar month. You must be employed on the last day of the calendar month in which the Monthly Override is earned to be eligible for the commission.

B. Smart Home Commission

You will receive a quarterly override of $10 per account for every Smart Home Account generated by the Company that is installed by Vivint, Inc. and for which the Company receives a fee from Vivint, Inc. pursuant to the Sales Dealer Agreement (the "***Smart Home Commission***"). The amount of the Smart Home Commission shall be reviewed by the Board annually and may be modified each year at the Board's sole and absolute discretion.

The Smart Home Commission will be fully and finally earned on the last day of the applicable financial quarter and paid on the first Monthly Payday of the following month. You must be employed on the last day of the quarter in which the Smart Home Commission is earned to be eligible for the commission.

3.0 CALCULATION OF COMMISSIONS

All commissions based upon the number of watts Installed shall be calculated based on the actual system size Installed.

Exhibit 10.2

EXECUTIVE EMPLOYMENT AGREEMENT

THIS EXECUTIVE EMPLOYMENT AGREEMENT ("***Agreement***") dated as of September 28, 2017 (the "***Effective Date***"), is made by and between Vivint Solar, Inc., a Delaware corporation (together with any successor thereto, the "***Company***") and Paul Dickson (the "***Executive***").

WHEREAS, the Company and the Executive have entered into an Employment Agreement, dated August 19, 2013 (the "***Prior Employment Agreement***") and the Executive has been and is currently employed by the Company;

WHEREAS, the Company desires to continue to employ the Executive, and the Executive desires to be employed by the Company, on the terms herein provided; and

WHEREAS, the Company and the Executive desire to terminate the Prior Employment Agreement and replace and supersede the Prior Employment Agreement in its entirety with this Agreement;

NOW, THEREFORE, in consideration of the foregoing and of the respective covenants and agreements set forth below the parties hereto agree as follows:

1. Certain Definitions.

(a) "***Board***" shall mean the Board of Directors of the Company.

(b) "***Cause***" for the Company to terminate the Executive's employment hereunder shall exist upon the occurrence of any of the following during Executive's employment by the Company (except with respect to clause (v) below): (i) material personal dishonesty by Executive involving Company business or participation in a fraud against the Company, or Executive's breach of Executive's fiduciary duty to Company; (ii) Executive's indictment or conviction of a felony or other crime involving moral turpitude or dishonesty; (iii) Executive's willful material refusal to comply with the lawful requests made of Executive by the Board reasonably related to Executive's employment by the Company and the performance of Executive's duties with respect thereto (but which shall not include a request to waive or amend any portion of this Agreement or terminate this Agreement or to consent to an action that would result in Executive's loss of a right under this Agreement); (iv) Executive's material violation of the Company's policies, after written notice to Executive and an opportunity to be heard by the Board and Executive's failure to fully cure such violations within a reasonable period of time of not less than thirty (30) days after such hearing; (v) Executive's threats or acts of violence in the workplace; (vi) Executive's unlawful harassment in the course of any business activity of any employee or independent contractor of the Company; (vii) Executive's theft or unauthorized conversion by or transfer of any Company asset or business opportunity to Executive or any third party; and (viii) a material breach by Executive of any material provision of this Agreement or any other agreement with the Company after written notice to Executive and an opportunity to be heard by the Board and Executive's failure to fully cure such breach within a reasonable period of time of not less than 30 days after such hearing.

(c) "***Change in Control***" shall mean the occurrence of any of the following:

(i) *Change in Ownership of the Company*. A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("***Person***"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than 50% of the total voting power of the stock of the Company; or

(ii) *Change in Effective Control of the Company*. A change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any 12-month period by directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this clause (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person shall not be considered a Change of Control; or

(iii) *Change in Ownership of a Substantial Portion of the Company's Assets*. A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, however, that for purposes of this subsection (iii), the following will not constitute a change in the ownership of a substantial portion of the Company's assets: (A) a transfer to an entity that is controlled by the Company's stockholders immediately after the transfer, or (B) a transfer of assets by the Company to: (1) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock, (2) an entity, 50% or more of the total value or voting power of which is owned, directly or indirectly, by the Company, (3) a Person, that owns, directly or indirectly, 50% or more of the total value or voting power of all the outstanding stock of the Company, or (4) an entity, at least 50% of the total value or voting power of which is owned, directly or indirectly, by a Person described in this subsection (iii)(B)(3). For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets. For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For these purposes, persons shall be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding the foregoing provisions of this definition, a transaction will not constitute a Change of Control unless the transaction qualifies as a change in control event within the meaning of Section 409A.

Further and for the avoidance of doubt, a transaction will not constitute a Change of Control if: (i) its sole purpose is to change the state of the Company's incorporation, or (ii) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(d) "***Change of Control Period***" means the period beginning on the date six months prior to, and ending on the date that is 18 months following, a Change of Control.

(e) "***Compensation Committee***" means the compensation committee of the Board.

(f) "***Confidential Information***" means any present or future information belonging to the Company or its Affiliates (as defined below) that pertains to the Company's or its Affiliates' business, whether developed by Employee or by other employees, contractors, or agents, that is confidential or proprietary in nature, and that is not generally known in the public domain. Confidential Information includes, without limitation, information regarding the Company's finances, financial condition, operations, business plans, business opportunities, purchasing activities, suppliers or potential suppliers, costs of materials, pricing, margins, sales, markets, marketing strategies, plans and ideas, customers, customer lists, customer agreements, customer purchases, customer documents, potential customers, technical data, research, product plans, products, methodologies, services, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, trade secrets, Confidential Materials, Inventions, Employment Inventions, Intellectual Property, or any other confidential business information of the Company that is disclosed to or obtained by Employee, directly or indirectly, whether in writing, orally, by observation or electronically (through email, computer disk, DVD, CD-ROM, or other electronic means). For these purposes, "Affiliate(s)" means any corporation, firm, partnership or other entity that controls, is controlled by or is under common control with Company – including, but not limited to, Vivint Solar Developer, LLC and any of Company's subsidiaries.

(g) "***Confidential Materials***" means any tangible medium containing Confidential Information, including but not limited to paper, electronic or magnetic media, prototypes, products, and other materials.

(h) "***Customer***" means any individual or entity that (1) entered into a credit authorization agreement with the Company during the six months immediately preceding the date Employee left his or her employment with the Company or its Subsidiaries or (2) entered into a contractual agreement with the Company to purchase or lease any product or service offered by the Company or its Subsidiaries.

(i) "***Date of Termination***" shall mean if the Executive's employment is terminated.

(j) "***Disability***" shall mean that Executive has been unable to perform Executive's duties at the Company as the result of Executive's incapacity due to physical or mental illness, and such inability, at least 26 weeks after its commencement, is determined to be total and permanent by a physician selected by the Company or its insurers and acceptable to Executive or Executive's legal representative (such Agreement as to acceptability not to be unreasonably withheld). Termination resulting from Disability may only be effected after at least 30 days' written notice by the Company of its intention to terminate Executive's employment. In the event that Executive resumes the performance of substantially all of Executive's duties hereunder before the termination of Executive's employment becomes effective, the notice of intent to terminate shall automatically be deemed to have been revoked.

(k) "***Employment Inventions***" means any Invention or part thereof conceived, developed, reduced to practice, or created by Employee which is:

(i) conceived, developed, reduced to practice, or created by the Employee: (1) within the scope of the Employee's employment with the Company; (2) on the Company's time; or (3) with the aid, assistance, or use of any of the Company's property, equipment, facilities, supplies, resources, or Intellectual Property;

(ii) the result of any work, services, or duties performed by the Employee for the Company;

(iii) related to the industry or trade of the Company; or

(iv) related to the current or demonstrably anticipated business, research, or development of the Company.

(l) "***Good Reason***" means Executive's resignation within 90 days following the expiration of any Company cure period (discussed below) following the occurrence of one or more of the following, without Executive's express written consent:

(i) a material diminution in Executive's title, duties, authority, reporting position or responsibilities measured in the aggregate; or

(ii) a material reduction of Executive's base compensation (in other words, a material reduction in Executive's base salary or target bonus opportunity) as in effect immediately prior to such reduction, other than reductions implemented as part of an overall Company-wide reduction program that is applied similarly to all executive officers and is no more than 20%; or

(iii) a material change in the geographic location at which Executive must perform services (in other words, Executive's relocation to a facility or an office location more than a 75-mile radius from Executive's then current location); or

(iv) a material breach by the Company of a material provision of any material agreement between Executive and the Company.

Notwithstanding the foregoing, Executive agrees not to resign for Good Reason without first providing the Company with written notice of the acts or omissions constituting the grounds for Good Reason within ninety 90 days of the initial existence of the grounds for Good Reason and a reasonable cure period of thirty 30 days following the date of such notice.

(m) "***Intellectual Property***" means any and all patents, copyrights, trademarks, service marks, trade secrets, know how, technology, ideas, or computer software belonging to the Company or its affiliates.

(n) "***Inventions***" means any and all inventions, products, formulations, discoveries, ideas, developments, improvements, technology, know-how, products, devices, structures, equipment, processes, methods, techniques, formulas, trade secrets, texts, research, program, software, computer programs, source codes, data, designs, works of authorship, and or other materials, whether or not published, patented, copyrighted, registered or suitable therefor, and all intellectual property rights therein, to the extent they relate to the Company's past, present, future, or anticipated business, research, development or trade.

(o) "***Material Contact***" means personal contact or the supervision of the efforts of those who have direct personal contact.

(p) "***Pre-Existing Inventions***" means any and all inventions, discoveries, ideas, original works of authorship, developments, improvements, trade secrets and other proprietary information or intellectual property rights owned by Employee or in which Employee has an interest prior to, or separate from, Employee's employment with the Company, including, without limitation, any such inventions that qualifies fully under the provisions of California Labor Code Section 2870, Del.Code tit. 19, § 805, N.C.Gen.Stat. §§ 66-57.1, and Utah Code § 34-39-3(1).

(q) "***Restricted Business***" means any individual or entity that provides products and/or services that are competitive with those offered or provided by the Company or any of its subsidiaries at any time during the Restricted Period, including (without limitation) the following companies: Renovate America, Solar Mosaic, Spruce Finance, Sungevity, Sunrun, SolarCity, SunPower Corporation, Sunova Energy Corp., ION Solar, Trinity Solar, Tesla, NRG Energy, Legacy, Verengo, RGS Energy, OneRoof

Energy, First Solar, Borrego Solar, groSolar, Smart Energy, Legend Solar, and any of their respective affiliates or current or future dealers.

(r) "***Restricted Period***" means during Executive's employment and for a period of 12 months following the date of Executive's termination of employment; provided, however, that if Executive's termination of employment occurs under the circumstances giving rise to payment under Section 5(b) of this Agreement, the Restricted Period will equal the Non-COC Severance Period.

(s) "***Restricted Territory***" means any geographic area that is within 100 miles of any geographic area in which the Company or any of its Subsidiaries engaged in business during the two years immediately preceding the date Executive left his employment with the Company or any of its Subsidiaries.

(t) "***Restricted Stock Unit***" shall have the meaning set forth in the Vivint Solar Inc. 2014 Equity Incentive Award Plan.

2. At-Will Employment.

The Company and Executive acknowledge that Executive's employment will continue to be at-will, as defined under applicable law. If Executive's employment terminates for any reason, including (without limitation) any termination for Cause, Executive shall not be entitled to any payments, benefits, damages, awards or compensation other than as provided by this Agreement or as may be available in accordance with the Company's established employee plans that provide benefits other than in the nature of severance or separation pay.

3. Position and Duties.

(a) Generally. The Executive shall serve as the Chief Revenue Officer ("***CRO***") of the Company. Subject to reasonable modification from time to time by the Board, Executive shall report to the Board and shall serve as CRO of the Company with such customary responsibilities, duties and authority as are usually incident to the position of CRO. Executive shall be responsible for such duties normally associated with such position and as may be directed by the Board. Executive will, on a full-time basis, apply all of her skill and experience to the performance of her duties in such employment and will not, without the prior consent of the Board, devote substantial amounts of time to outside business activities. Notwithstanding the foregoing, Executive may devote a reasonable amount of her time to civic, community, charitable or passive investment activities.

(b) Subsidiaries. If elected or appointed thereto, and only for the duration of such elected term or appointment, the Executive shall serve as a director of the Company and any of its subsidiaries and/or in one or more executive offices of any of such subsidiaries, provided that the Executive is indemnified for serving in any and all such capacities as provided for in the Company By-laws or otherwise.

4. Compensation and Related Matters.

(a) Annual Base Salary. During Executive's employment, Executive shall receive a base salary (such base salary, as in effect from time to time, the "***Annual Base Salary***") at a rate of $350,000 per annum, provided that the Executive's Annual Base Salary may be revised as determined by the Board or its authorized committee with a view toward consideration of merit increases, market rates of pay for similarly situated executives and such other factors that the Board or its authorized committee determines to be appropriate. The Annual Base Salary shall be paid in arrears in substantially equal installments at monthly or more frequent intervals, in accordance with the normal payroll practices of the Company.

(b) Conditional Sign-On Bonus.

(i) Payment of Bonus. Company agrees to pay Executive a one-time Conditional Sign-On Bonus of $200,000 (the "***Sign-On Bonus***"), subject to all required taxes and withholdings, to be paid within thirty (30) days following the Effective Date. The Parties agree that the Bonus is an unvested wage advance upon receipt that Executive will earn in its entirety by remaining employed by Company through June 1, 2018.

(ii) Repayment of Bonus. Executive agrees to repay to Company all or a prorated amount of the Bonus, according to the following terms:

(1) Repayment Due to Termination of Employment. If Executive's employment with Company terminates prior to June 1, 2018, Executive agrees to repay the Sign-On Bonus in its entirety. Executive further agrees that Executive will repay the Sign-On Bonus by no later than the effective date of the employment termination, and that any outstanding balance on such repayment obligation is delinquent and immediately collectable the day following the effective date of termination.

(2) Repayment Forgiveness. If the Company terminates Executive's employment with the Company other than for Cause (excluding by reason of death or Disability), Company agrees to forgive any repayment due Company under this Section 4(b). **The Parties agree that Executive's voluntary termination of his employment, or Company's termination of Candidate's employment for Cause, are not conditions requiring forgiveness of any repayment due Company under this Agreement.**

(c) Bonus. Executive shall be eligible to receive an annual performance bonus (the "***Annual Bonus***") to be determined by the Compensation Committee of the Board and based on criteria as set forth in the "Corporate Bonus Plan" or any successor Corporate Bonus Plan approved by the Compensation Committee, which shall include but necessarily be limited to achievement of individual and Company performance objectives. The target bonus will be 50% of Executive's Annual Base Salary, but shall be earned and determined by the Compensation Committee in its sole discretion. Executive must be employed by Company on the date Company pays the Annual Bonus and Executive will not earn or be entitled to any pro rata bonus payment if Executive's employment ends for any reason prior to such date. The Annual Bonus shall be paid in no event later than March 15th of each calendar year.

(d) Commissions and Overrides. Executive will also be eligible to receive the commission payments set forth in the Executive Leadership Sales Compensation Plan (the "***Commission Plan***"), or any successor commission plan approved by the Compensation Committee, based upon the achievement of the criteria set forth in the Commission Plan.

(e) Restricted Stock Units and Options Grant. Following the next regularly scheduled meeting of the Board, Executive will be granted Restricted Stock Units and Stock Options (the "***Equity Awards***") in an amount and pursuant to a vesting schedule to be determined and approved by the Board. The Equity Awards will be subject to Executive's continued employment with the Company through applicable vesting dates and Executive will be required to enter into an award agreement with the Company for any Equity Award. The Equity Awards shall contain such other terms (consistent with the Company's customary form of equity agreements and not inconsistent with this Agreement) as the Board determines.

(f) Benefits. Executive shall be entitled to participate in the other employee benefit plans, programs and arrangements of the Company in effect during Executive's employment (including, without limitation, at the time of execution of this Agreement, health insurance, dental insurance, vision insurance, long-term disability coverage, short term disability, cellular phone reimbursement, and vacation for Executive and his/her eligible dependents) now (or, to the extent determined by the Compensation Committee, hereafter) in effect which are applicable to the senior officers of the Company (the "Eligible Benefit Plans"), subject to and on a basis consistent with the terms, conditions and overall administration thereof. The Executive agrees that nothing contained in this Agreement shall prevent the Company from terminating or modifying any such Eligible Benefit Plans in whole or in part at any time.

(g) Expenses. The Company shall reimburse the Executive for all reasonable travel and other business expenses incurred by her in the performance of her duties to the Company, in accordance with the Company's documentation and other policies with respect thereto.

5. Severance Benefits.

(a) Voluntary Resignation; Termination for Cause. If Executive's employment with the Company terminates (i) voluntarily by Executive other than for Good Reason during the Change of Control Period, or (ii) for Cause by the Company, then Executive shall not be entitled to receive any payment other than accrued but unpaid vacation, expense reimbursements, wages, and other benefits due to Executive under any Company's established employee plans, policies, and arrangements that provide benefits other than in the nature of severance or separation pay ("***Accrued Compensation***").

(b) Involuntary Termination other than for Cause outside of the Change of Control Period. If, outside of the Change of Control Period, the Company terminates Executive's employment with the Company other than for Cause (excluding by reason of death or Disability), then subject to Section 6 below and in addition to any Accrued Compensation, Executive shall receive the following:

(i) Non-COC Severance Payment. Executive shall be paid an amount equal to 1.0x the sum of (A) Executive's base salary rate, as then in effect, plus (B) (i) if Executive has been employed with the Company for at least one year as of the date of Executive's termination of employment, the average of performance bonuses paid to Executive for each year Executive was employed by the Company during the 3-year period immediately preceding the date of Executive's termination of employment or (ii) if Executive has been employed with the Company for less than one year as of the date of Executive's termination of employment, Executive's target annual performance bonus, in effect for the Company's fiscal year in which Executive's employment with the Company terminates (the "***Non-COC Severance***"). The Non-COC Severance will be paid, less applicable withholdings, in equal installments over a period of 12 months following the date Executive's employment with the Company terminates (the "***Non-COC Severance Period***"), with the first payment to be made on the 61st day following Executive's termination of employment (and to include any severance payments that otherwise would have been paid to Executive within the 60 days following the date of Executive's termination of employment), with any remaining payments paid in accordance with the Company's normal payroll practices for the remainder of the Non-COC Severance Period.

(ii) Non-COC Additional Bonus Payment. Executive shall be paid an amount equal to a pro-rata portion of the annual bonus paid to Executive in respect of the fiscal year which ended prior to the fiscal year that contained the date of Executive's termination of employment; provided, however, that if the duration of Executive's employment with the Company in the prior fiscal year did not entitle Executive to annual bonus for that fiscal year, such pro-rata portion instead will be determined using Executive's target annual bonus in the fiscal year that contained the date of Executive's termination of employment (the "***NonCOC Additional Bonus***"). The pro-rata portion will be based on the number of days that elapsed in the fiscal year between the first day of the fiscal year and the date of Executive's termination of employment compared to 365. This Non-COC Additional Bonus will be paid, less applicable withholdings, in equal installments over the Non-COC Severance Period, with the first payment to be made on the 6lst day following Executive's termination of employment (and to include any Non-COC Additional Bonus amount that otherwise would have been paid to Executive within the 60 days following the date of Executive's termination of employment), with any remaining payments paid in accordance with the Company's normal payroll practices for the remainder of the Non-COC Severance Period.

(iii) Continued Employee Benefits. If Executive elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***") within the time period prescribed pursuant to COBRA for Executive and Executive's eligible dependents, then the Company will reimburse Executive for the COBRA premiums for such coverage (at the coverage levels in effect immediately prior to Executive's termination) until the earlier of (A) the end of the Non-COC Severance Period or (B) the date upon which Executive and/or Executive's eligible dependents are no longer eligible for COBRA continuation coverage. The reimbursements will be made by the Company to Executive consistent with the Company's normal expense reimbursement policy. Notwithstanding the first sentence of this Section 5(b)(iii), if, at the time of Executive's termination of employment, it would result in a Company excise tax to reimburse Executive for the COBRA premiums than no such premiums will be reimbursed and if do so would not cause imposition of an excise tax, Executive will be paid a single lump sum of $12,000.

(c) Involuntary Termination other than for Cause or Voluntary Termination for Good Reason within the Change of Control Period. If, within the Change of Control Period, (i) the Company terminates Executive's employment without Cause (excluding by reason of death or Disability) or (ii) Executive terminates Executive's employment with the Company for Good Reason, then, subject to Section 6 below and in addition to any Accrued Compensation, Executive shall receive the following severance from the Company:

(i) COC Severance Payment. Executive shall be paid an amount equal to 2.0x the sum of (A) Executive's base salary rate, as then in effect, plus (B) (i) if Executive has been employed with the Company for at least one year as of the date of Executive's termination of employment, the average of the performance bonuses paid to Executive for each year Executive was employed by the Company during the 3-year period immediately preceding the date of Executive's termination of employment or (ii) if Executive has been employed with the Company for less than one year as of the date of Executive's termination of employment, Executive's target annual performance bonus, in effect for the Company's fiscal year in which Executive's employment with the Company terminates (the "***COC Severance***"). The COC Severance will be paid, less applicable withholdings, in a lump sum on the 61st day following Executive's termination of employment. For the avoidance of doubt, if (x) Executive incurred a termination prior to a Change of Control that qualifies Executive for severance payments under Section 5(b)(i) above; and (y) a Change of Control occurs within six months following Executive's termination of employment that qualifies Executive for the superior benefits under this Section 5(c)(i), then Executive shall be entitled to a lump-sum payment of the amount calculated under this Section 5(c)(i), less amounts already paid under Section 5(b)(i) above.

(ii) COC Additional Bonus Payment. Executive shall be paid an amount equal to a pro-rata portion of the annual performance bonus that would have been paid to Executive had Executive been employed by the Company for the entire fiscal year that contained the date of Executive's termination of employment, based on actual performance for such fiscal year (and assuming that any performance objectives that are based on individual performance are achieved at target levels) (the "***COC Additional Bonus***"). This COC Bonus Severance will be paid in a lump sum, less applicable withholdings, at the same time as annual performance bonuses are paid to other Company executives. For the avoidance of doubt, if (x) Executive incurred a termination prior to a Change of Control that qualifies Executive for severance payments under Section 5(a)(ii) above; and (y) a Change of Control occurs within six months following Executive's termination of employment that qualifies Executive for superior benefits under this Section 5(c)(ii), then Executive shall be entitled to a lump-sum payment of the amount calculated under this Section 5(c)(ii), less amounts already paid under Section 5(b)(ii) above, but in no case less than $0.

(iii) Equity Compensation Acceleration. 100% of Executive's then unvested outstanding stock options, restricted stock units and other Company equity compensation awards, including any equity awards transferred to Executive's estate planning vehicles (the "***Equity Compensation Awards***") shall immediately vest and become exercisable. In the case of equity awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at target levels. Any Company stock options and stock appreciation rights shall thereafter remain exercisable following Executive's employment termination for the period prescribed in the respective option and stock appreciation right agreements.

(iv) Continued Employee Benefits. If Executive elects continuation coverage pursuant to the COBRA within the time period prescribed pursuant to COBRA for Executive and Executive's eligible dependents, then the Company will reimburse Executive for the COBRA premiums for such coverage (at the coverage levels in effect immediately prior to Executive's termination) until the earlier of (A) the end of 12 months or (B) the date upon which Executive and/or Executive's eligible dependents are no longer eligible for COBRA continuation coverage. The reimbursements will be made by the Company to Executive consistent with the Company's normal expense reimbursement policy. Notwithstanding the first sentence of this Section 5(c)(iv), if, at the time of Executive's termination of employment, it would result in a Company excise tax to reimburse Executive for the COBRA premiums than no such premiums will be reimbursed and if do so would not cause imposition of an excise tax, Executive will be paid a single lump sum of $24,000.

(d) Termination for Death or Disability. If Executive's employment is terminated as a result of Executive's Disability or death, Executive (or Executive's estate) shall not be entitled to receive any payment other than Accrued Compensation.

(e) Exclusive Remedy. In the event of a termination of Executive's employment, the provisions of Section 5 are intended to be and are exclusive an in lieu of any other rights or remedies to which Executive or the Company otherwise may be entitled, whether at law, tort, or contract, in equity, or under this Agreement (other than the payment of Accrued Compensation). For the avoidance of doubt, Executive shall in no circumstances be entitled to both benefits pursuant to Section 5(b) and the benefits pursuant to Section 5(c), except as specifically set out in Section 5(c). Executive will be entitled to no benefits, compensation, or other payments or rights upon a termination of employment other than those benefits expressly set forth in Section 5 of this Agreement.

6. Conditional Nature of Severance Payments and Benefits.

(a) Release of Claims Agreement. Notwithstanding anything to the contrary in this Agreement, the Executive shall not be entitled to any severance payments or benefits under Section 5, unless the Executive executes and does not revoke the release of claims in substantially the form attached hereto as Exhibit A (the "***Release***"), and such release becomes effective and irrevocable within sixty (60) days following the Date of Termination (the "***Release Deadline***"). If the Release does not become effective and irrevocable by the Release Deadline, Executive shall forfeit any right to severance payments or benefits under this Agreement. In no event shall severance payments or benefits be paid or provided until the Release actually becomes effective and irrevocable. Notwithstanding anything to the contrary in Section 5, the payments due under Section 5 shall be payable commencing on the Company's first payroll date occurring on or after the 60th day following the Date of Termination, or if later, such time as required by Sections 22 and 23 below (the "***First Payroll Date***"), and any amounts that would otherwise have been paid pursuant to such Section 5 prior to the First Payroll Date shall be paid in a lump-sum on the First Payroll Date.

(b) Restrictive Covenants. . Executive's receipt of any payments or benefits under Section 5 shall be subject to Executive continuing to comply with the terms of the Restrictive Covenants set forth in Section 7 (collectively, the "***Restrictive Covenants***").

7. Restrictive Covenants.

(a) Covenant Not to Solicit Employees. To the fullest extent permitted under applicable law, Executive agrees that during the Restricted Period, Executive will not directly or indirectly engage in the following conduct, nor will Executive aid, abet, assist, encourage, or influence others to do so: Induce or attempt to induce, solicit or attempt to solicit, or encourage or attempt to encourage, in any capacity, on Executive's behalf or on behalf of any other firm, person or entity, any employee of the Company with whom you had Material Contact while employed by the Company, to terminate their employment relationship with the Company to work in or for a Restricted Business. Executive agrees that nothing in this Section shall affect his/her continuing obligations under this Agreement during and after the Restricted Period, including, without limitation, Executive's obligations under the Confidentiality and Non-Disclosure Agreement section in this Agreement.

(b) Covenant Not to Solicit Customers. During the Restricted Period, Executive will not directly or indirectly engage in the following conduct, nor will Executive aid, abet, assist, encourage, or influence others to do so: Induce or attempt to induce, solicit or attempt to solicit, or encourage or attempt to encourage, in any capacity, on Executive's behalf or on behalf of any other firm, person, or entity, any Customer with whom you had Material Contact during the last six (6) months of your employment with the Company to terminate a contract with the Company or to enter into a contract with another company. Executive acknowledges and agrees that (i) the names, addresses, product specifications, pricing, and information regarding Customers and the Company, are the confidential and proprietary information of the Company (collectively, "***Proprietary Information***"); and (ii) Executive shall not, nor shall it permit any other person or entity within its control, to sell, disclose, or otherwise disseminate Proprietary Information (each, "***Improper Disclosure***"). Executive promises not to engage in any Improper Disclosure during or after his/her employment with the Company.

(c) Covenant Not to Compete. To the maximum extent permitted under applicable law, during the Restricted Period, Executive shall not, in any manner, directly or indirectly, in the Restricted Territory perform the same or substantially similar job duties that you performed for the Company on behalf of any business, person, firm, corporation, partnership, limited liability company, governmental or private entity, or any other entity of whatever kind, engaged in the Restricted Business.

Nothing contained in this Agreement shall prohibit Executive from being a passive owner of not more than two percent (2%) of the outstanding stock of any class of a corporation, any securities of which are publicly traded, so long as Executive has no active participation in the business of such corporation.

During the Restricted Period, Executive shall communicate the contents of this Agreement to any person (including any business) that Executive intends to be retained or employed by, associated with, or represent and which Executive knows is engaged in the Restricted Business in the Restricted Territory.

(d) Tolling of Covenants. If a court of competent jurisdiction determines that Executive has violated any of Executive's obligations under this Agreement, then the Restricted Period will automatically be extended by a period of time equal in length to the period during which such violation or violations occurred.

(e) Reasonableness of Covenants. Executive acknowledges and understands that the covenants of Executive under this Agreement are limited to the extent necessary to protect the legitimate business interests of the company, including the loss of goodwill, unfair competition and to preserve the Company's Confidential Information. Executive expressly acknowledges and agrees that the respective covenants and agreements contained herein are reasonable as to both scope and time.

EXECUTIVE ACKNOWLEDGES AND UNDERSTANDS THAT HIS OR HER STRICT COMPLIANCE WITH THE COVENANTS HEREUNDER IS A MATERIAL CONDITION OF THIS AGREEMENT, AND THAT THE COMPANY WOULD NOT HAVE ENGAGED, OR CONTINUED TO ENGAGE, EXECUTIVE WITHOUT THIS AGREEMENT.

(f) Construction of this Section. In the event the terms of this Section 7 shall be determined by any court of competent jurisdiction to be unenforceable by reason of its extending for too great a period of time or over too great a geographical area or by reason of its being too extensive in any other respect, it will be interpreted to extend only over the maximum period of time for which it may be enforceable, and/or over the maximum geographical area as to which it may be enforceable and/or to the maximum extent in all other respects as to which it may be enforceable, all as determined by such court in such action.

8. Confidentiality and Non-Disclosure Agreement.

(a) Covenant to Safeguard Confidential Information. In connection with Executive's Services hereunder, Executive may receive or have access to Confidential Information and Confidential Materials. Executive acknowledges and agrees that:

(i) All Confidential Information shall remain the sole property of the Company;

(ii) All Confidential Information belonging to the Company is valuable, special and unique to the Company's business, that the Company's business depends upon such Confidential Information, and that the Company wishes to protect such Confidential Information by keeping it confidential for the use and benefit of the Company;

(iii) Unless Executive is engaging in Protected Activity, as described below in Section 8(e), Executive shall keep all Confidential Information confidential and will not, without the prior written consent of the Company's Chief Executive Officer or General Counsel, disclose (whether directly or through some other person or entity), in whole or in part, and will not use such information, directly or indirectly, for any purpose other than as expressly allowed by the Company;

(iv) Unless Executive is engaging in Protected Activity, as described below in Section 8(e), Executive shall not use the Company's Confidential Information for Executive's direct or indirect benefit or for the direct or indirect benefit of any person or entity other than the Company;

(v) Unless Executive is engaging in Protected Activity, as described below in Section 8(e), Executive shall not aid, encourage, or allow any other person or entity to use the Company's Confidential Information without authorization;

(vi) Executive shall use reasonable and diligent efforts to protect the confidentiality of the Company's Confidential Information;

(vii) Unless Executive is engaging in Protected Activity, as described below in Section 8(e), Executive shall use the Company's Confidential Information solely to fulfill the duties of Executive's employment relationship with the Company and not otherwise to use such information for Executive's benefit or the benefit of others;

(viii) Executive shall not use, view, or access Confidential Information where it can be seen or viewed by unauthorized persons, and not to leave such information or materials where they can be seen or accessed by unauthorized persons;

(ix) Executive shall notify the Company if Executive becomes aware of any loss, misuse, wrongful disclosure, or other unauthorized access of the Company's Confidential Information by any person;

(x) Executive shall take all other reasonable steps necessary, or reasonably requested by the Company, to safeguard the Company's Confidential Information from unauthorized disclosure or use; and

(xi) Executive shall not disclose to the Company any trade secrets or confidential information of party to whom Executive owes a duty of confidentiality.

(b) Permission to Notify. Executive authorizes the Company to notify others, including (without limitation) the Executive's current or future clients, of the terms of this Agreement and the Executive's covenants and obligations hereunder.

(c) Return of Information. Upon the request of the Company, or upon the termination of Executive's employment with the Company, Executive shall deliver promptly (and in no event later than two (2) business days after termination) to the Company all Confidential Information and other documents or materials belonging to the Company (including all copies thereof), and all other property belonging to the Company, which are in Executive's possession, custody or control.

(d) Notice of Compelled Disclosure. In the event that Executive or anyone to whom Executive transmits any Confidential Information ("***Compelled Person***") becomes legally compelled (by oral questions, interrogatories, requests for information or documents, subpoena, civil investigative demand, or other similar judicial or other compulsory process) to disclose any of the Confidential Information, such Compelled Person will provide the Company with prompt written notice so that it may seek a protective order or other appropriate remedy to protect and preserve the confidentiality of such Confidential Information and/or waive compliance with the provisions of this Agreement. In the event that such a protective order or other remedy is not obtained, or compliance with the provisions of this Agreement is waived, Executive shall disclose or furnish only that portion of the Confidential Information that Executive is legally required to produce and will exercise his or her best efforts to obtain reliable assurance that the Confidential Information will be kept confidential to the greatest extent possible. This provision shall not restrict an Executive who is requested by a law enforcement agency not to provide such notice to the Company, nor does it limit Executive from engaging in Protected Activity, as defined below in Section 8(e).

(e) Protected Activity Not Prohibited. Nothing in this Agreement limits or prohibits Executive from filing a charge or complaint with, or otherwise communicating or cooperating with or participating in any investigation or proceeding that may be conducted by, any federal, state or local government agency or commission, including the Securities and Exchange Commission, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, and the National Labor Relations Board ("***Government Agencies***"), including disclosing documents or other information as permitted by law, without giving notice to, or receiving authorization from, the Company. Notwithstanding, in making any such disclosures or communications, Executive must take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Company Confidential Information to any parties other than the Government Agencies. Executive shall not be held criminally or civilly liable under any U.S. federal or state trade secret law for the disclosure of a trade secret that is made (i) in confidence to a U.S. federal, state, or local government office or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (ii) in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose a trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order. Except as otherwise provided in this paragraph or under applicable law, Executive is not permitted to disclose the Company's attorney-client privileged communications or attorney work product or trade secrets.

9. Remedies for Breach of the Covenants.

Executive recognizes that the Company's business interest in maintaining the confidentiality of its Confidential Information, its relationships and goodwill with its customers, and the stability of its work force, is so great that the remedy at law for Executive's breach or threatened breach of the covenants contained in this Agreement may be an inadequate remedy. Executive agrees that, in the event of a breach or threatened breach by Executive of any of the covenants contain in this Agreement, a court of competent jurisdiction may issue a restraining order or an injunction against Executive, restraining or enjoining Executive from engaging in conduct or actions that violate the said covenant. In addition, the Company shall be entitled to any and all other remedies available to the Company at law or in equity, and no action by the Company in pursuing a given remedy shall constitute an election to forego other remedies.

10. Covenant of Ownership and Disclosure of Developments.

(a) Employment Inventions. Executive agrees to promptly disclose to the Company the existence, use, and/or manner of operation of any and all Employment Inventions. Executive acknowledges and agrees that all Employment Inventions are the sole and exclusive property of the Company. Executive hereby assigns to the Company any and all copyrights, patent rights, trade secrets, and other rights that Executive may have in any Employment Invention. Executive agrees to take all actions reasonably requested by the Company, both during and after the term of Executive's employment, to assign to the Company and to establish, perfect, exercise or protect the Company's rights in any Employment Inventions or title thereto, including without limitation, assisting in obtaining or registering copyrights, patents, trademarks or similar intellectual property rights and executing assignments to the Company. If the Company is unable, because of Executive's mental or physical incapacity, geographic distance or for any other reason, to obtain Executive's approval or signature on any document necessary or useful to claim, secure, extend, protect or enforce any right in intellectual property to which the Company has a reasonable claim, then Executive hereby appoints the Company and its duly authorized officers as Executive's agent and attorney-in-fact to act for Executive for the purpose of accomplishing such act with the same legal force and effect as if executed by Executive. Executive will not incorporate any inventions, discoveries, ideas, original works of authorship, developments, improvements, trade secrets and other proprietary information or intellectual property rights owned by any third party into any Invention without the Company's prior written permission.

(c) Pre-Existing Inventions. Executive will inform the Company in writing prior to incorporating any Pre-Existing Inventions into any Invention or otherwise utilizing any such Pre-Existing Inventions in the course of Executive's employment with the Company; and the Company is hereby granted a nonexclusive, royalty-free, perpetual, irrevocable, transferable worldwide license (with the right to grant and authorize sublicenses) to make, have made, use, import, offer for sale, sell, reproduce, distribute, modify, adapt, prepare derivative works of, display, perform, and otherwise exploit such Pre-Existing Inventions, without restriction, including, without limitation, as part of or in connection with such Invention, and to practice any method related thereto.

11. Arbitration and Equitable Relief.

(a) Arbitration. IN CONSIDERATION OF EXECUTIVE'S EMPLOYMENT WITH THE COMPANY, ITS PROMISE TO ARBITRATE ALL EMPLOYMENT-RELATED DISPUTES AND EXECUTIVE'S RECEIPT OF THE COMPENSATION, PAY RAISES AND OTHER BENEFITS PAID TO ME BY THE COMPANY, AT PRESENT AND IN THE FUTURE, EXECUTIVE AGREES THAT ANY AND ALL CONTROVERSIES, CLAIMS, OR DISPUTES WITH ANYONE (INCLUDING THE COMPANY AND ANY EMPLOYEE, OFFICER, DIRECTOR, SHAREHOLDER OR BENEFIT PLAN OF THE COMPANY, IN THEIR CAPACITY AS SUCH OR OTHERWISE), ARISING OUT OF, RELATING TO, OR RESULTING FROM MY EMPLOYMENT WITH THE COMPANY OR THE TERMINATION OF MY EMPLOYMENT WITH THE COMPANY, INCLUDING ANY BREACH OF THIS AGREEMENT, SHALL BE SUBJECT TO BINDING ARBITRATION UNDER THE ARBITRATION PROVISIONS SET FORTH IN THE UTAH UNIFORM ARBTITRATION ACT (THE "***RULES***") AND PURSUANT TO UTAH LAW. THE FEDERAL ARBITRATION ACT SHALL CONTINUE TO APPLY WITH FULL FORCE AND EFFECT NOTWITHSTANDING THE APPLICATION OF PROCEDURAL RULES SET FORTH IN THE ACT. DISPUTES THAT I AGREE TO ARBITRATE, AND THEREBY AGREE TO WAIVE ANY RIGHT TO A TRIAL BY JURY, INCLUDE ANY STATUTORY CLAIMS UNDER LOCAL, STATE, OR FEDERAL LAW, INCLUDING, BUT NOT LIMITED TO, CLAIMS UNDER TITLE VII OF THE CIVIL RIGHTS ACT OF 1964, THE CIVIL RIGHTS ACT OF 1991, THE AMERICANS WITH DISABILITIES ACT OF 1990, THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967, THE OLDER WORKERS BENEFIT PROTECTION ACT, THE WORKER ADJUSTMENT AND RETRAINING NOTIFICATION ACT, THE FAIR CREDIT REPORTING ACT, THE EMPLOYEE RETIREMENT INCOME SECURITY ACT OF 1974, THE FAMILY AND MEDICAL LEAVE ACT, THE UTAH ANTIDISCRIMINATION ACT, CLAIMS OF HARASSMENT, DISCRIMINATION AND WRONGFUL TERMINATION, AND ANY STATUTORY OR COMMON LAW CLAIMS, EXCEPT AS PROHIBITED BY LAW. NOTWITHSTANDING THE FOREGOING, I UNDERSTAND THAT NOTHING IN THIS AGREEMENT CONSTITUTES A WAIVER OF MY RIGHTS UNDER SECTION 7 OF THE NATIONAL LABOR RELATIONS ACT OR THE SARBANES-OXLEY ACT, INCLUDING ANY RIGHTS PROHIBITING COMPULSORY ARBITRATION. SIMILARLY, NOTHING IN THIS AGREEMENT PROHIBITS ME FROM ENGAGING IN PROTECTED ACTIVITY, AS SET FORTH BELOW. EXECUTIVE FURTHER UNDERSTANDS THAT THIS AGREEMENT TO ARBITRATE ALSO APPLIES TO ANY DISPUTES THAT THE COMPANY MAY HAVE WITH EXEUCTIVE. EXECUTIVE AGREES THAT HE MAY ONLY COMMENCE AN ACTION IN ARBITRATION, OR ASSERT COUNTERCLAIMS IN AN ARBITRATION, ON AN INDIVIDUAL BASIS AND, THUS, HEREBY WAIVE HIS RIGHT TO COMMENCE OR PARTICIPATE IN ANY CLASS OR COLLECTIVE ACTION(S) AGAINST THE COMPANY, AS PERMITTED BY LAW.

(b) Procedure. EXEUCTIVE AGREES THAT ANY ARBITRATION WILL BE ADMINISTERED BY JUDICIAL ARBITRATION & MEDIATION SERVICES, INC. ("***JAMS***"),

PURSUANT TO ITS EMPLOYMENT ARBITRATION RULES & PROCEDURES (THE "***JAMS RULES***"), WHICH ARE AVAILABLE AT http://www.jamsadr.com/rules-employment-arbitration/ AND FROM HUMAN RESOURCES. EXEUCTIVE UNDERSTANDS THAT THE PARTIES TO THE ARBITRATION SHALL EACH PAY AN EQUAL SHARE OF THE COSTS AND EXPENSES OF SUCH ARBITRATION, EXCEPT AS PROHIBITED BY LAW, AND UNDERSTAND THAT EACH PARTY SHALL SEPARATELY PAY FOR ITS RESPECTIVE ATTORNEYS' FEES AND COSTS. EXECUTIVE AGREES THAT THE ARBITRATOR SHALL HAVE THE POWER TO DECIDE ANY MOTIONS BROUGHT BY ANY PARTY TO THE ARBITRATION, INCLUDING MOTIONS FOR SUMMARY JUDGMENT AND/OR ADJUDICATION, AND MOTIONS TO DISMISS, PRIOR TO ANY ARBITRATION HEARING. EXECUTIVE AGREES THAT THE ARBITRATOR SHALL ISSUE A WRITTEN DECISION ON THE MERITS. EXECUTIVE ALSO AGREES THAT THE ARBITRATOR SHALL HAVE THE POWER TO AWARD ANY REMEDIES AVAILABLE UNDER APPLICABLE LAW. EXECUTIVE AGREES THAT THE DECREE OR AWARD RENDERED BY THE ARBITRATOR MAY BE ENTERED AS A FINAL AND BINDING JUDGMENT IN ANY COURT HAVING JURISDICTION THEREOF. EXECUTIVE AGREES THAT THE ARBITRATOR SHALL ADMINISTER AND CONDUCT ANY ARBITRATION IN ACCORDANCE WITH UTAH LAW, INCLUDING THE UTAH RULES OF CIVIL PROCEDURE AND THE UTAH RULES OF EVIDENCE, AND THAT THE ARBITRATOR SHALL APPLY SUBSTANTIVE AND PROCEDURAL UTAH LAW TO ANY DISPUTE OR CLAIM, WITHOUT REFERENCE TO RULES OF CONFLICT OF LAW. TO THE EXTENT THAT THE JAMS RULES CONFLICT WITH UTAH LAW, UTAH LAW SHALL TAKE PRECEDENCE. I AGREE THAT THE DECISION OF THE ARBITRATOR SHALL BE IN WRITING. I AGREE THAT ARBITRATION UNDER THIS AGREEMENT SHALL BE CONDUCTED IN UTAH COUNTY, UTAH.

(c) Remedy. EXCEPT AS PROVIDED BY THE RULES AND THIS AGREEMENT, ARBITRATION SHALL BE THE SOLE, EXCLUSIVE AND FINAL REMEDY FOR ANY DISPUTE BETWEEN EXECUTIVE AND THE COMPANY. ACCORDINGLY, EXCEPT AS PROVIDED FOR BY THE RULES AND THIS AGREEMENT, NEITHER EXECUTIVE NOR THE COMPANY WILL BE PERMITTED TO PURSUE COURT ACTION REGARDING CLAIMS THAT ARE SUBJECT TO ARBITRATION.

(d) Availability of Injunctive Relief. EXECUTIVE AGREES THAT ANY PARTY MAY ALSO PETITION THE COURT FOR TEMPORARY AND/OR PRELIMINARY INJUNCTIVE RELIEF WHERE EITHER PARTY ALLEGES OR CLAIMS A VIOLATION OF THE AT-WILL EMPLOYMENT, CONFIDENTIAL INFORMATION, INVENTION ASSIGNMENT, AND ARBITRATION AGREEMENT BETWEEN EXECUTIVE AND THE COMPANY OR ANY OTHER AGREEMENT REGARDING TRADE SECRETS, INTELLECTUAL PROPERTY, CONFIDENTIAL INFORMATION, PROPRIETARY INFORMATION, NONCOMPETITION OR NONSOLICITATION. THE PARTIES UNDERSTAND THAT ANY BREACH OR THREATENED BREACH OF SUCH AN AGREEMENT WILL CAUSE IRREPARABLE INJURY AND THAT MONEY DAMAGES WILL NOT PROVIDE AN ADEQUATE REMEDY THEREFOR AND BOTH PARTIES HEREBY CONSENT TO THE ISSUANCE OF AN INJUNCTION WITHOUT POSTING OF A BOND. IN THE EVENT EITHER PARTY SEEKS TEMPORARY AND/OR PRELIMINARY INJUNCTIVE RELIEF, THE PREVAILING PARTY SHALL BE ENTITLED TO RECOVER REASONABLE COSTS AND ATTORNEYS' FEES WITHOUT REGARD FOR THE PREVAILING PARTY IN THE FINAL JUDGMENT, IF ANY. SUCH ATTORNEYS' FEES AND COSTS SHALL BE RECOVERABLE ON WRITTEN DEMAND AT ANY TIME, INCLUDING, BUT NOT LIMITED TO, PRIOR TO ENTRY OF A FINAL JUDGMENT, IF ANY, BY THE COURT, AND MUST BE PAID WITHIN THIRTY (30) DAYS AFTER DEMAND OR ELSE SUCH AMOUNTS SHALL BE SUBJECT TO THE ACCRUAL OF INTEREST AT A RATE EQUAL TO.

(e) Administrative Relief. THE PARTIES UNDERSTAND THAT THIS AGREEMENT DOES NOT PROHIBIT EITHER PARTY FROM PURSUING AN ADMINISTRATIVE CLAIM WITH A LOCAL, STATE, OR FEDERAL ADMINISTRATIVE BODY OR GOVERNMENT AGENCY THAT IS AUTHORIZED TO ENFORCE OR ADMINISTER LAWS RELATED TO EMPLOYMENT, INCLUDING, BUT NOT LIMITED TO, THE UTAH LABOR COMMISSION, THE EQUAL EMPLOYMENT OPPORTUNITY COMMISSION, THE SECURITIES AND EXCHANGE COMMISSION, THE NATIONAL LABOR RELATIONS BOARD, OR THE WORKERS' COMPENSATION BOARD. THIS AGREEMENT DOES, HOWEVER, PRECLUDE ME FROM PURSUING COURT ACTION REGARDING ANY SUCH CLAIM, EXCEPT AS PERMITTED BY LAW.

(f) Voluntary Nature of Agreement. THE PARTIES ACKNOWLEDGE AND AGREE THAT THEY ARE EXECUTING THIS AGREEMENT VOLUNTARILY AND WITHOUT ANY DURESS OR UNDUE INFLUENCE. THE PARTIES FURTHER ACKNOWLEDGE AND AGREE THAT THEY HAVE CAREFULLY READ THIS AGREEMENT AND THAT THEY HAVE ASKED ANY QUESTIONS NEEDED FOR THEM TO UNDERSTAND THE TERMS, CONSEQUENCES, AND BINDING EFFECT OF THIS AGREEMENT AND FULLY UNDERSTAND IT, INCLUDING THAT THEY ARE WAIVING THEIR RIGHT TO A JURY TRIAL. FINALLY, THE PARTIES AGREE THAT THEY HAVE EACH BEEN PROVIDED AN OPPORTUNITY TO SEEK THE ADVICE OF AN ATTORNEY OF THEIR CHOICE BEFORE SIGNING THIS AGREEMENT.

12. Submission to Jurisdiction.

Each Party irrevocably consents and agrees that any action, proceeding, or other litigation by or against any other Party or Parties with respect to any claim or cause of action based upon or arising out of or related to this Agreement or the transactions contemplated hereby, shall be brought and tried exclusively in the state and federal courts located in the City of Salt Lake, County of Salt Lake, in the State of Utah, and any such legal action or proceeding must be removed to the aforesaid courts. By execution and delivery of the Agreement, each Party accepts, for itself and in respect of its property, generally and unconditionally, the exclusive jurisdiction of the aforesaid courts. Each Party hereby irrevocably waives (a) any objection which it may now or hereafter have to the laying of venue with respect any such action, proceeding, or litigation arising out of or in connection with this Agreement or the transactions contemplated hereby brought in the aforesaid courts, and (b) any right to stay or dismiss any such action, proceeding, or litigation brought before the aforesaid courts on the basis of forum *non-conveniens*. Each Party further agrees that personal jurisdiction over it may be affected by service of process by certified mail, postage prepaid, addressed as provided in Section 16 of this Agreement, and when so made shall be as if served upon it personally within the State of Utah.

13. Binding on Successors.

This Agreement shall be binding upon and inure to the benefit of the Company, the Executive and their respective successors, assigns, personnel and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. The Company may assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company. The Executive may not assign the Executive's rights or obligations under this Agreement other than the Executive's rights to payments hereunder, which may only be assigned by will or the operation of the laws of descent and distribution.

14. Governing Law.

This Agreement shall be governed, construed, interpreted and enforced in accordance with the substantive laws of the State of Utah, without reference to the principles of conflicts of law of the State of Utah or any other jurisdiction, and where applicable, the laws of the United States.

15. Validity.

The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

16. Notices.

All notices, requests, demands, and other communications required or permitted to be given under this Agreement by any Party shall be in writing delivered, if to the Company, to the address set forth below, and if to Executive, to the address set forth on the signature page hereto, or to such other address as any Party may designate from time to time by written notice to all other Parties. Each such notice, request, demand, or other communication shall be deemed given and effective, as follows: (i) if sent by hand delivery, upon delivery; (ii) if sent by first-class U.S. Mail, postage prepaid, upon the earlier to occur of receipt or three (3) days after deposit in the U.S. Mail; (iii) if sent by a recognized prepaid overnight courier service, one (1) day after the date it is given to such service; (iv) if sent by facsimile, upon receipt of confirmation of successful transmission by the facsimile machine; and (v) if sent by email, upon acknowledgement of receipt by the recipient.

VIVINT SOLAR, INC.

Address:	1800 West Ashton Boulevard
City, State Zip:	Lehi, Utah 84043
Attention:	David Bywater Chief Executive Officer

WITH COPY TO:

VIVINT SOLAR, INC.

Address:	1800 West Ashton Boulevard
City, State Zip:	Lehi, Utah 84043
Attention:	Legal Department

17. Counterparts.

This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement.

18. Entire Agreement.

The terms of this Agreement are intended by the parties to be the final expression of their agreement with respect to the employment of the Executive by the Company and may not be contradicted by evidence of any prior or contemporaneous agreement. The parties further intend that this Agreement shall constitute the complete and exclusive statement of its terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement. The parties agree that the Prior Employment Agreement is hereby terminated, and this Agreement replaces and supersedes the Prior Employment Agreement in its entirety.

19. Amendments; Waivers.

This Agreement may not be modified, amended, or terminated except by an instrument in writing, signed by the Executive and the Chief Operating Officer. By an instrument in writing similarly executed, the Executive or the Company may waive compliance by the other party or parties with any provision of this Agreement that such other party was or is obligated to comply with or perform, provided, however, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

20. No Inconsistent Actions.

The parties hereto shall not voluntarily undertake or fail to undertake any action or course of action inconsistent with the provisions or essential intent of this Agreement. Furthermore, it is the intent of the parties hereto to act in a fair and reasonable manner with respect to the interpretation and application of the provisions of this Agreement.

21. Claw-back.

All compensation received by Executive shall be subject to the provisions of any claw-back policy implemented by the Company to comply with applicable law, regulation or stock exchange rule, including, without limitation, any claw-back policy adopted to comply with the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder.

22. Section 409A.

(a) Notwithstanding anything to the contrary in this Agreement, no payment or benefit to be paid or provided to Executive, if any, pursuant to this Agreement that, when considered together with any other severance payments or separation benefits, is considered deferred compensation under Section 409A of the Internal Revenue Code of 1986, as amended (the "***Code***"), and the final regulations and any guidance promulgated thereunder ("***Section 409A***") (together, the "***Deferred Payments***") shall be paid or otherwise provided until Executive has a "separation from service" within the meaning of Section 409A. Similarly, no severance payable to Executive, if any, pursuant to this Agreement that otherwise would be exempt from Section 409A pursuant to Treasury Regulation Section l.409A-l(b)(9) shall be payable until Executive has a "separation from service" within the meaning of Section 409A.

(b) It is intended that none of the payments under this Agreement will constitute "Deferred Payments" but rather will be exempt from Section 409A as a payment that would fall within the "short-term deferral period" as described in Section 22(d) below or resulting from an involuntary separation from service as described in Section 22(c)(e) below. However, any severance payments or benefits under this Agreement that would be considered Deferred Payments shall be paid on, or, in the case of installments, shall not commence until, the 61st day following Executive's separation from service, or, if later, such time as required by Section 22(c). Except as required by Section 22(c), any installment payments that would have been made to Executive during the 60 day period immediately following Executive's separation from service but for the preceding sentence shall be paid to Executive on the 61st day following Executive's separation from service and the remaining payments shall be made as provided in this Agreement.

(c) Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409 A at the time of Executive's termination (other than due to death), then the Deferred Payments, if any, that are payable within the first six months following Executive's separation from service, shall become payable on the first payroll date that occurs on or after the date six months and one day following the date of Executive's separation from service. All subsequent Deferred Payments, if any, shall be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following Executive's separation from service, but before the six month anniversary of the separation from service, then any payments delayed in accordance with this paragraph shall be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Payments shall be payable in accordance with the payment schedule applicable to each payment or benefit. Each payment and benefit payable under this Agreement is intended to constitute a separate payment under Section l.409A-2(b)(2) of the Treasury Regulations.

(d) Any amount paid under this Agreement that satisfies the requirements of the "short-term deferral" rule set forth in Section l.409A-l (b)(4) of the Treasury Regulations shall not constitute Deferred Payments for purposes of Section 22(a) above.

(e) Any amount paid under this Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to Section l.409A-l (b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit (as defined below) shall not constitute Deferred Payments for purposes of Section 22(a) above.

(f) The foregoing provisions are intended to comply with the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder shall be subject to the additional tax imposed under Section 409A, and any ambiguities herein shall be interpreted to so comply. The Company and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition before actual payment to Executive under Section 409A. In no event will the Company reimburse Executive for any tax obligations incurred by Executive as a result of the application of Section 409A.

23. Golden Parachute Excise Tax Best Results.

In the event that the severance and other benefits provided for in this agreement or otherwise payable to Executive (a) constitute "parachute payments" within the meaning of Code Section 280G and (b) would be subject to the excise tax imposed by Code Section 4999, then such benefits shall be either:

(a) delivered in full, or
(b) delivered as to such lesser extent which would result in no portion of such severance benefits being subject to excise tax under Section 4999 of the Code,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income and employment taxes and the excise tax imposed by Code Section 4999, results in the receipt by Executive, on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under Code Section 4999. Unless the Company and Executive otherwise agree in writing, the determination of Executive's excise tax liability and the amount required to be paid under this Section 5 shall be made in writing by a nationally recognized certified professional services firm selected by the Company, the Company's legal counsel or such other person or entity to which the parties mutually agree (the "***Firm***"). For purposes of making the calculations required by this Section 23, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Code Sections 280G and 4999. The Company and Executive shall furnish to the Firm such information and documents as the

Firm may reasonably request in order to make a determination under this Section 23. The Company shall bear all costs the Firm may reasonably incur in connection with any calculations contemplated by this Section 23. Any reduction in payments and/or benefits required by this Section 23 shall occur in the following order: (i) reduction of cash payments; (ii) cancellation of awards granted "contingent on a change in ownership or control" (within the meaning of Code Section 280G); (iii) cancellation of accelerated vesting of equity awards; or (iv) reduction of employee benefits. In the event that acceleration of vesting of equity award compensation is to be reduced, such acceleration of vesting will be cancelled in the reverse order of the date of grant of Executive's equity awards. If two or more equity compensation awards are granted on the same date, each award shall be reduced on a pro-rata basis.

24. Survival.

The provisions of this Agreement shall survive the termination of Executive's employment with the Company.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties have executed this Agreement on the date and year first above written.

COMPANY

VIVINT SOLAR, INC.
By: /s/ David Bywater
Name: David Bywater
Title: Chief Executive Officer
Dated: September 28, 2017

EXECUTIVE

Paul Dickson, an individual

/s/ Paul Dickson
(Signature)
Dated: September 28, 2017

<u>EXHIBIT A</u>
RELEASE OF CLAIMS

THIS RELEASE OF CLAIMS (this " ***Agreement***") is made by and between Vivint Solar, Inc. (the "***Company***"), and ____________("***Employee***"). The Company and Employee are sometimes collectively referred to herein as the "***Parties***" and individually referred to as a "***Party***".

RECITALS

WHEREAS, Employee was employed by the Company until _______ __, 20__, when Employee's employment was terminated ("***Termination Date***");

WHEREAS, Employee signed an Executive Employment Agreement with the Company, effective as of ____________ (the "***Proprietary Rights Agreement***");

WHEREAS, in accordance with Section 5[(b)]/[(c)] of that certain Involuntary Termination Protection Agreement between the Company and Employee, effective as of _____________ (the "***Termination Agreement***"), Employee has agreed to enter into and not revoke a standard release of claims in favor of the Company as a condition to receiving the severance benefits described in the Termination Agreement; and

WHEREAS, the Parties wish to resolve any and all disputes, claims, complaints, grievances, charges, actions, petitions and demands that Employee may have against the Company and any of the Releasees (as defined below), including, but not limited to, any and all claims arising out of or in any way related to Employee's employment relationship with the Company and the termination of that relationship.

NOW THEREFORE, for good and valuable consideration, including the mutual promises and covenants made herein, the Company and Employee hereby agree as follows:

COVENANTS

1. <u>Termination</u>. Employee's employment with the Company terminated on the Termination Date.

2. <u>Payment of Salary and Receipt of All Benefits</u>. Employee acknowledges and represents that, other than the consideration to be paid in accordance with the terms and conditions of the Termination Agreement, the Company has paid or provided all salary, wages, bonuses, accrued vacation/paid time off, premiums, leaves, housing allowances, relocation costs, interest, severance, outplacement costs, fees, reimbursable expenses, commissions, draws, stock, stock options or other equity awards (including restricted stock unit awards), vesting, and any and all other benefits and compensation due to Employee and that no other reimbursements or compensation are owed to Employee.

3. <u>Release of Claims</u>. Employee agrees that the consideration to be paid in accordance with the terms and conditions of the Termination Agreement represents settlement in full of all outstanding obligations owed to Employee by the Company and its current and former officers, directors, employees, agents, investors, attorneys, stockholders, administrators, affiliates, benefit plans, plan administrators, insurers, trustees, divisions, and subsidiaries, and predecessor and successor corporations and assigns (collectively, the "***Releasees***"). Employee, on Employee's own behalf and on behalf of Employee's respective heirs, family members, executors, agents, and assigns, hereby and forever releases the

Releasees from, and agrees not to sue concerning, or in any manner to institute, prosecute, or pursue, any claim, complaint, charge, duty, obligation, demand, or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that Employee may possess against any of the Releasees arising from any omissions, acts, facts, or damages that have occurred up until and including the Effective Date of this Agreement, including, without limitation the following:

(a) any and all claims relating to or arising from Employee's employment relationship with the Company and the termination of that relationship;

(b) any and all claims relating to, or arising from, Employee's right to purchase, or actual purchase of shares of stock of the Company, including, without limitation, any claims for fraud, misrepresentation, breach of fiduciary duty, breach of duty under applicable state corporate law, and securities fraud under any state or federal law;

(c) any and all claims for wrongful discharge of employment; termination in violation of public policy; discrimination; harassment; retaliation; breach of contract, both express and implied; breach of covenant of good faith and fair dealing, both express and implied; promissory estoppel; negligent or intentional infliction of emotional distress; fraud; negligent or intentional misrepresentation; negligent or intentional interference with contract or prospective economic advantage; unfair business practices; defamation; libel; slander; negligence; personal injury; assault; battery; invasion of privacy; false imprisonment; conversion; and disability benefits;

(d) any and all claims for violation of any federal, state, or municipal statute, including, but not limited to, Title VII of the Civil Rights Act of 1964; the Civil Rights Act of 1991; the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990; the Equal Pay Act; the Fair Labor Standards Act; the Fair Credit Reporting Act; the Age Discrimination in Employment Act of 1967; the Older Workers Benefit Protection Act; the Employee Retirement Income Security Act of 1974; the Worker Adjustment and Retraining Notification Act; the Family and Medical Leave Act; the Sarbanes-Oxley Act of 2002; the Utah Antidiscrimination Act; the California Family Rights Act; the California Equal Pay Law; the California Unruh Civil Rights Act; the California Workers' Compensation Act; the California Labor Code; and the California Fair Employment and Housing Act; the Utah Antidiscrimination Act;

(e) any and all claims for violation of the federal, or any state, constitution;

(f) any and all claims arising out of any other laws and regulations relating to employment or employment discrimination;

(g) any claim for any loss, cost, damage, or expense arising out of any dispute over the nonwithholding or other tax treatment of any of the proceeds received by Employee as a result of this Agreement; and

(h) any and all claims for attorneys' fees and costs.

Employee agrees that the release set forth in this Section 3 (the "***Release***") shall be and remain in effect in all respects as a complete general release as to the matters released. The Release does not extend to any severance obligations due Employee under the Termination Agreement. The Release does not release claims that cannot be released as a matter of law, including, but not limited to, Employee's right to file a charge with or participate in a charge by the Equal Employment Opportunity Commission, or any other local, state, or federal administrative body or government agency that is authorized to enforce or administer laws related to employment, against the Company (with the understanding that any such filing or participation does not give Employee the right to recover any monetary damages against the Company;

Employee's release of claims herein bars Employee from recovering such monetary relief from the Company). Employee represents that Employee has made no assignment or transfer of any right, claim, complaint, charge, duty, obligation, demand, cause of action, or other matter waived or released by this Section 3. Nothing in this Agreement waives Employee's (i) rights under that certain Indemnification Agreement between the Company and Employee, effective as of August 28, 2014 (the "***Indemnification Agreement***"), or (ii) rights to indemnification or any payments under any fiduciary insurance policy, if any, provided by any act or agreement of the Company, state or federal law or policy of insurance.

4. Acknowledgment of Waiver of Claims under ADEA. Employee acknowledges that Employee is waiving and releasing any rights Employee may have under the Age Discrimination in Employment Act of 1967 ("***ADEA***") and that this waiver and release is knowing and voluntary. Employee agrees that this waiver and release does not apply to any rights or claims that may arise under the ADEA after the Effective Date of this Agreement. Employee acknowledges that the consideration given for this waiver and release Agreement is in addition to anything of value to which Employee was already entitled. Employee further acknowledges that Employee has been advised by this writing that (a) Employee should consult with an attorney ***prior*** to executing this Agreement; (b) Employee has at least 21 days within which to consider this Agreement; (c) Employee has 7 days following the execution of this Agreement by the parties to revoke the Agreement; (d) this Agreement shall not be effective until the revocation period has expired; and (e) nothing in this Agreement prevents or precludes Employee from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties or costs for doing so, unless specifically authorized by federal law. In the event Employee signs this Agreement and delivers it to the Company in less than the 21-day period identified above, Employee hereby acknowledges that Employee has freely and voluntarily chosen to waive the time period allotted for considering this Agreement. Employee acknowledges and understands that revocation must be accomplished by a written notification to the Chief Legal Officer of the Company that is received prior to the Effective Date.

5. Unknown Claims. Employee acknowledges that Employee has been advised to consult with legal counsel and that Employee is familiar with the principle that a general release does not extend to claims that the releaser does not know or suspect to exist in Employee's favor at the time of executing the release, which, if known by Employee, must have materially affected Employee's settlement with the releasee. Employee, being aware of this principle, agrees to expressly waive any rights Employee may have to that effect, as well as under any other statute or common law principles of similar effect.

6. No Pending or Future Lawsuits. Employee represents that Employee has no lawsuits, claims, or actions pending in Employee's name, or on behalf of any other person or entity, against the Company or any of the other Releasees. Employee also represents that Employee does not intend to bring any claims on Employee's own behalf or on behalf of any other person or entity against the Company or any of the other Releasees. Employee confirms that Employee has no knowledge of any wrongdoing involving improper or false claims against a federal or state governmental agency, or any other wrongdoing that involves Employee or any other present or former Company employees, including violations of the federal and state securities laws or the Sarbanes-Oxley Act of 2002.

7. Confidential Information. Employee reaffirms and agrees to observe and abide by the terms of the Executive Employment Agreement, specifically including the provisions therein regarding nondisclosure of the Company's trade secrets and confidential and proprietary information, which agreement shall continue in force.

8. Return of Company Property; Passwords and Password-protected Documents. Employee confirms that Employee has returned to the Company in good working order all keys, files, records (and copies thereof), equipment (including, but not limited to, computer hardware, software and printers,

wireless handheld devices, cellular phones and pagers), access or credit cards, Company identification, and any other Company-owned property in Employee's possession or control. Employee further confirms that Employee has cancelled all accounts for Employee's benefit, if any, in the Company's name, including, but not limited to, credit cards, telephone charge cards, cellular phone and/or pager accounts and computer accounts. Employee also confirms that Employee has delivered all passwords in use by Employee at the time of Employee's termination, a list of any documents that Employee created or of which Employee is otherwise aware that are password-protected, along with the password(s) necessary to access such password-protected documents.

9. No Cooperation. Employee agrees that Employee will not knowingly encourage, counsel, or assist any attorneys or their clients in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints by any third party against any of the Releasees, unless under a subpoena or other court order to do so or as related directly to the ADEA waiver in this Agreement. Employee agrees both to immediately notify the Company upon receipt of any such subpoena or court order, and to furnish, within three (3) business days of its receipt, a copy of such subpoena or other court order. If approached by anyone for counsel or assistance in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints against any of the Releasees, Employee shall state no more than that Employee cannot provide any such counsel or assistance.

10. Breach. In addition to the rights provided in the Section 11 below, Employee acknowledges and agrees that any material breach of this Agreement (unless such breach constitutes a legal action by Employee challenging or seeking a determination in good faith of the validity of the waiver herein under the ADEA), or of any provision of the Proprietary Rights Agreement, shall entitle the Company immediately to recover and/or cease providing the consideration provided to Employee under this Agreement and to obtain damages, except as provided by law, *provided, however*, that the Company shall not recover One Hundred Dollars ($100.00) of the consideration already paid pursuant to this Agreement and such amount shall serve as full and complete consideration for the promises and obligations assumed by Employee under this Agreement and the Proprietary Rights Agreement.

11. Attorneys' Fees. In the event that either Party brings an action to enforce or effect its rights under this Agreement, the prevailing Party shall be entitled to recover its costs and expenses, including the costs of mediation, arbitration, litigation, court fees, and reasonable attorneys' fees incurred in connection with such an action.

12. No Admission of Liability. Employee understands and acknowledges that this Agreement constitutes a compromise and settlement of any and all actual or potential disputed claims by Employee. No action taken by the Company hereto, either previously or in connection with this Agreement, shall be deemed or construed to be (a) an admission of the truth or falsity of any actual or potential claims or (b) an acknowledgment or admission by the Company of any fault or liability whatsoever to Employee or to any third party.

13. Noncompetition/Nonsolicitation/Nondisparagement. Employee agrees to adhere to the noncompetition, nonsolictiation, and the nondisparagement restrictions set forth in the Employment Agreement.

14. Costs. The Parties shall each bear their own costs, attorneys' fees and other fees incurred in connection with the preparation of this Agreement.

15. Arbitration. THE PARTIES AGREE THAT ANY AND ALL DISPUTES ARISING OUT OF THE TERMS OF THIS AGREEMENT, THEIR INTERPRETATION, AND ANY OF THE

MATTERS HEREIN RELEASED, SHALL BE SUBJECT TO ARBITRATION IN UTAH COUNTY IN THE STATE OF UTAH, BEFORE JUDICIAL ARBITRATION & MEDIATION SERVICES ("***JAMS***"), PURSUANT TO ITS EMPLOYMENT ARBITRATION RULES & PROCEDURES ("***JAMS RULES***"). THE ARBITRATOR MAY GRANT INJUNCTIONS AND OTHER RELIEF IN SUCH DISPUTES. THE ARBITRATOR SHALL ADMINISTER AND CONDUCT ANY ARBITRATION IN ACCORDANCE WITH UTAH LAW, INCLUDING THE UTAH RULES OF CIVIL PROCEDURE, AND THE ARBITRATOR SHALL APPLY SUBSTANTIVE AND PROCEDURAL UTAH LAW TO ANY DISPUTE OR CLAIM, WITHOUT REFERENCE TO ANY CONFLICT-OF-LAW PROVISIONS OF ANY JURISDICTION. TO THE EXTENT THAT THE JAMS RULES CONFLICT WITH UTAH LAW, UTAH LAW SHALL TAKE PRECEDENCE. THE DECISION OF THE ARBITRATOR SHALL BE FINAL, CONCLUSIVE, AND BINDING ON THE PARTIES TO THE ARBITRATION. THE PARTIES AGREE THAT THE PREVAILING PARTY IN ANY ARBITRATION SHALL BE ENTITLED TO INJUNCTIVE RELIEF IN ANY COURT OF COMPETENT JURISDICTION TO ENFORCE THE ARBITRATION AWARD. THE PARTIES TO THE ARBITRATION SHALL EACH PAY AN EQUAL SHARE OF THE COSTS AND EXPENSES OF SUCH ARBITRATION, AND EACH PARTY SHALL SEPARATELY PAY FOR ITS RESPECTIVE COUNSEL FEES AND EXPENSES; PROVIDED, HOWEVER, THAT THE ARBITRATOR SHALL AWARD ATTORNEYS' FEES AND COSTS TO THE PREVAILING PARTY, EXCEPT AS PROHIBITED BY LAW. THE PARTIES HEREBY AGREE TO WAIVE THEIR RIGHT TO HAVE ANY DISPUTE BETWEEN THEM RESOLVED IN A COURT OF LAW BY A JUDGE OR JURY. NOTWITHSTANDING THE FOREGOING, THIS SECTION 15 WILL NOT PREVENT EITHER PARTY FROM SEEKING INJUNCTIVE RELIEF (OR ANY OTHER PROVISIONAL REMEDY) FROM ANY COURT HAVING JURISDICTION OVER THE PARTIES AND THE SUBJECT MATTER OF THEIR DISPUTE RELATING TO THIS AGREEMENT AND THE AGREEMENTS INCORPORATED HEREIN BY REFERENCE. SHOULD ANY PART OF THE ARBITRATION AGREEMENT CONTAINED IN THIS PARAGRAPH CONFLICT WITH ANY OTHER ARBITRATION AGREEMENT BETWEEN THE PARTIES, THE PARTIES AGREE THAT THIS ARBITRATION AGREEMENT SHALL GOVERN.

16. Authority. The Company represents and warrants that the undersigned has the authority to act on behalf of the Company and to bind the Company and all who may claim through it to the terms and conditions of this Agreement. Employee represents and warrants that Employee has the capacity to act on Employee's own behalf and on behalf of all who might claim through Employee to bind them to the terms and conditions of this Agreement. Each Party warrants and represents that there are no liens or claims of lien or assignments in law or equity or otherwise of or against any of the claims or causes of action released herein.

17. No Representations. Employee represents that Employee has had the opportunity to consult with an attorney, and has carefully read and understands the scope and effect of the provisions of this Agreement. Employee has relied upon any representations or statements made by the Company that are not specifically set forth in this Agreement.

18. Severability. In the event that any provision or any portion of any provision hereof or any surviving agreement made a part hereof becomes or is declared by a court of competent jurisdiction or arbitrator to be illegal, unenforceable, or void, this Agreement shall continue in full force and effect without said provision or portion of provision.

19. Entire Agreement. This Agreement represents the entire agreement and understanding between the Company and Employee concerning the subject matter of this Agreement and Employee's employment with and separation from the Company and the events leading thereto and associated therewith, and supersedes and replaces any and all prior agreements and understandings concerning the

subject matter of this Agreement and Employee's relationship with the Company, with the exception of the Proprietary Rights Agreement, the Termination Agreement, the Indemnification Agreement, and Employee's written equity compensation agreements with the Company.

20. No Oral Modification. This Agreement may only be amended in writing signed by Employee and the Chairman of the Compensation Committee of the Board of Directors of the Company.

21. Governing Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of Utah, without regard to the choice-of-law provisions. The Utah state courts located in Utah County, Utah and/or the United States District Court for the District of Utah, located in Provo, Utah, shall have exclusive jurisdiction and venue over all controversies relating to or arising out of this Agreement. Employee hereby expressly consents to the exclusive jurisdiction and venue of the Utah state courts in Utah County, Utah and/or the United States District Court for the District of Utah for any disputes arising out of or relating to this Agreement.

22. Effective Date. Employee understands that this Agreement shall be null and void if not executed by Employee within 21 days. Each Party has seven days after that Party signs this Agreement to revoke it. This Agreement will become effective on the eighth (8th) day after Employee signed this Agreement, so long as it has been signed by the Parties and has not been revoked by either Party before that date (the "***Effective Date***").

23. Counterparts. This Agreement may be executed in counterparts and by facsimile, and each counterpart and facsimile shall have the same force and effect as an original and shall constitute an effective, binding agreement on the part of each of the undersigned.

24. Voluntary Execution of Agreement. Employee understands and agrees that Employee executed this Agreement voluntarily, without any duress or undue influence on the part or behalf of the Company or any third party, with the full intent of releasing all of Employee's claims against the Company and any of the other Releasees. Employee expressly acknowledges that:

(a) Employee has read this Agreement;

(b) Employee has been represented in the preparation, negotiation, and execution of this Agreement by legal counsel of Employee's own choice or has elected not to retain legal counsel;

(c) Employee understands the terms and consequences of this Agreement and of the releases it contains; and

(d) Employee is fully aware of the legal and binding effect of this Agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the respective dates set forth below.

COMPANY

VIVINT SOLAR, INC.

By: ______________________________

Name:______________________________

Title:______________________________

Dated:______________________________

EMPLOYEE

________________, an individual

____
(Signature)

Dated:______________________________

Exhibit 10.3

AMENDMENT TO EXECUTIVE EMPLOYMENT AGREEMENT

THIS AMENDMENT TO EXECUTIVE EMPLOYMENT AGREEMENT ("***Amendment***") dated as of November 2, 2017 (the "***Effective Date***"), is made by and between Vivint Solar, Inc., a Delaware corporation (together with any successor thereto, the "***Company***") and Paul Dickson (the "***Executive***").

WHEREAS, the Company and the Executive have entered into a certain Executive Employment Agreement, dated September 28, 2017 (the "***Agreement***");

WHEREAS, the Company and the Executive desire to amend the terms of the Agreement in accordance with the terms provided herein;

NOW, THEREFORE, in consideration of the above facts and the mutual promises set forth in this Amendment, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Section 4(d) of the Agreement is hereby deleted in its entirety and replaced with the following paragraph:

(d) Commissions and Overrides. Executive will also be eligible to receive the commission payments set forth in the Commission and Override Structure, attached hereto as Exhibit B (the "***Commission Structure***"), provided that the Commission Structure may be revised as determined by the Board or its authorized committee with a view toward consideration of merit increases, market rates of pay for similarly situated executives and such other factors that the Board or its authorized committee determines to be appropriate.

2. All other terms of the Agreement, shall continue in full force and effect for the duration of the Agreement; provided, however, that in the case of any discrepancy between this Amendment and the Agreement, this Amendment shall prevail.

3. This Amendment shall be deemed to be part of the Agreement and any reference to the Agreement in any other documents shall be construed as including this Amendment.

4. This Amendment may be executed separately by the parties hereto, and each executed copy shall be deemed as an original. All originals shall constitute the same document.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties have executed this Agreement on the date and year first above written.

COMPANY	VIVINT SOLAR, INC.
	By: /s/ David Bywater Name: David Bywater Title: Chief Executive Officer Dated: November 2, 2017
EXECUTIVE	Paul Dickson, an individual
	/s/ Paul Dickson (Signature) Dated: November 2, 2017

EXHIBIT B

COMMISSION AND OVERRIDE STRUCTURE

1.0 DEFINITIONS

For purposes of this Commission Structure, the following terms shall have the following meanings:

- "***Install***", "***Installed***" or "***Installation***" – the completed installation of solar panels that count towards the company's publically reported number of megawatts deployed.

- "***Smart Home Account***" – Any installation of Vivint Smart Home packages sold by a Vivint Solar rep for which the Solar rep is paid a commission.

- "***Monthly Payday***" – the first Friday after the 10th calendar day in the month following the end of a month, quarter, or year wherein a monthly, quarterly, or annual commission is earned.

- "***Sales Dealer Agreement***" – the Sales Dealer Agreement, dated August 16, 2017, by and between Vivint Solar Developer, LLC and Vivint, Inc.

2.0 COMMISSIONS

A. Monthly Override

Beginning with October 1, 2017, you will receive a monthly commission of two tenths of a cent ($0.002) for every watt that the Company Installs during each calendar month (the "***Monthly Override***"). The Monthly Override is fully and finally earned on the last day of each month and paid on the first Monthly Payday of the following calendar month. You must be employed on the last day of the calendar month in which the Monthly Override is earned to be eligible for the commission.

B. Smart Home Commission

You will receive a quarterly override of $10 per account for every Smart Home Account generated by the Company that is installed by Vivint, Inc. and for which the Company receives a fee from Vivint, Inc. pursuant to the Sales Dealer Agreement (the "***Smart Home Commission***"). The amount of the Smart Home Commission shall be reviewed by the Board annually and may be modified each year at the Board's sole and absolute discretion.

The Smart Home Commission will be fully and finally earned on the last day of the applicable financial quarter and paid on the first Monthly Payday of the following month. You must be employed on the last day of the quarter in which the Smart Home Commission is earned to be eligible for the commission.

3.0 CALCULATION OF COMMISSIONS

All commissions based upon the number of watts Installed shall be calculated based on the actual system size Installed.

Exhibit 31.1

**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 7, 2020

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

Exhibit 31.2

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 7, 2020

By: /s/ Dana Russell
Dana Russell
Chief Financial Officer, Executive Vice President, and Assistant Secretary
(Principal Financial and Accounting Officer)

Exhibit 32.1

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, 2020 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 7, 2020

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

Exhibit 32.2

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, 2020 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 7, 2020

By: /s/ Dana Russell
Dana Russell
Chief Financial Officer, Executive Vice President, and Assistant Secretary
(Principal Financial and Accounting Officer)