



## Estimated Cost per Watt Methodology

May 7, 2020

Cost per watt (CPW) is an important metric in understanding Vivint Solar's residential business. The CPW calculation includes costs associated with systems subject to power purchase agreements, leases, and those sold directly to customers. This memo shows how Vivint Solar's CPW can be estimated using the company's reported GAAP financial statements, other reported operating metrics, and information extracted from the company's books and records. All data and calculations shown in this memo are as of March 31, 2020.

### Installation

Vivint Solar only capitalizes a portion of its installation expense. Equipment expense as well as a portion of other installation expense including direct labor is capitalized on the balance sheet. The portion of installation expense that is not capitalized is expensed through the income statement in the period it is incurred. To calculate total installation expense, add the change in system equipment costs, the cost of revenue – customer agreements and incentives, the cost of revenue – solar energy system and product sales, and the change in work in progress - system equipment costs, less associated non-cash expenses (stock-based compensation, depreciation and amortization), and fleet performance. This total is then divided by the total megawatts installed in the period.

### Sales & Marketing

Much like installation expenses, only a portion of sales & marketing expense is capitalized. The remaining portion is expensed through the income statement in the period it is incurred or is reported as a future commitment in our filings. To calculate the total sales & marketing expense, add the portion that flows through the income statement, the portion of sales & marketing expense that is capitalized, including work in progress – costs to obtain SPA contracts and customer incentives, and the expense reported as Residual Payments in Note 19 Commitments and Contingencies to our condensed consolidated Financial Statements in our Form 10-Q filed with the SEC, less the amount of expense related to non-cash stock-based compensation and any one-time items. This total is then divided by the total megawatts installed in the period.



## Installation Cost per Watt Calculation

	<u>Q1'20</u>
Installation (in thousands)	
System equipment costs (BS Note)	\$ 67,438
Plus: Cost of rev - customer agreements and incentives (IS)	52,823
Plus: Cost of rev - solar energy system and product sale (IS)	22,048
Plus: WIP - System equipment costs (BS Note)	(6,191)
Less: Stock-based compensation (BS Note)	(368)
Less: Depreciation and amortization (BS Note)	(14,770)
Less: Fleet performance (Company's books)	(11,454)
<b>Total installation costs</b>	<b>\$ 109,526</b>
Installation (\$ / W)	
Total installation costs (in millions)	\$ 109.5
Divided: MW installed	56.1
<b>Installation cost per watt</b>	<b>\$ 1.95</b>

Note 5. Solar Energy Systems (in thousands)	<u>Q1'20</u>	<u>Q4'19</u>	<u>Change</u>
Solar energy systems, net			
System equipment costs	\$ 1,994,247	\$ 1,926,809	\$ 67,438
Solar energy system inventory	80,765	38,390	42,375
Solar energy systems	2,075,012	1,965,199	109,813
Less: Accumulated depreciation and amortization	(220,108)	(205,338)	(14,770)
Solar energy systems, net	<u>\$ 1,854,904</u>	<u>\$ 1,759,861</u>	<u>\$ 95,043</u>

Note 4. Inventories (in thousands)	<u>Q1'20</u>	<u>Q4'19</u>	<u>Change</u>
Inventories			
Photovoltaic installation products	\$ 682	\$ 684	\$ (2)
Solar energy systems held for sale	13,701	19,892	(6,191)
Inventories	<u>\$ 14,383</u>	<u>\$ 20,576</u>	<u>\$ (6,193)</u>

Note 16. Equity Compensation Plans	<u>Q1'20</u>
Stock-based compensation included in operating expenses (in thousands)	
Cost of revenue	\$ 368
Sales and marketing	956
Research and development	32
General and administrative	2,583
Total stock-based compensation	<u>\$ 3,939</u>

Note: Amounts may not add due to rounding



## Sales & Marketing Cost per Watt Calculation

Sales & Marketing (in thousands)				
Sales & Marketing (IS)				<u>Q1'20</u>
Plus: Costs to obtain contracts (BS Note)				\$ 39,608
Less: Accumulated amortization of cost to obtain contracts				53,219
Plus: Residual payments				(5,569)
Plus: WIP - Cost to obtain SPA contracts (BS Note - prepaid assets)				(2,705)
Plus: Customer incentives (Company's books)				(4,605)
Less: Stock-based compensation				266
Total sales & marketing costs				<u>\$ 79,258</u>
Sales & Marketing (\$ / W)				
Total sales & marketing costs (in millions)				79.3
Divide: MW installed				<u>56.1</u>
<b>Total Sales &amp; Marketing</b>				<b><u>\$ 1.41</u></b>
Note 7. Other Non-Current Assets				
	<u>Q1'20</u>	<u>Q4'19</u>	<u>Change</u>	
Cost to obtain contracts	\$ 668,604	\$ 615,385	\$ 53,219	
Accumulated amortization of cost to obtain contracts	(75,739)	(70,170)	(5,569)	
Operating lease right-of-use assets	48,986	39,118	9,868	
Sales Incentives	10,112	10,008	104	
Other non-current assets	31,049	85,721	(54,672)	
Total other non-current assets	<u>\$ 683,012</u>	<u>\$ 680,062</u>	<u>\$ 2,950</u>	
Note 19. Commitments and Contingencies				
	<u>Q1'20</u>	<u>Q4'19</u>	<u>Change</u>	
Residual payments (in thousands)	\$ 2,516	\$ 5,221	\$ (2,705)	
Note 16. Equity Compensation Plans				
Stock-based compensation included in operating expenses (in thousands)				<u>Q1'20</u>
Cost of revenue - operating leases and incentives				\$ 368
Sales and marketing				956
Research and development				32
General and administrative				2,583
Total stock-based compensation				<u>\$ 3,939</u>
Consolidated Balance Sheet (in thousands)				
	<u>Q1'20</u>	<u>Q4'19</u>	<u>Change</u>	
Current assets - Customer incentives	\$ 585	\$ 570	\$ 15	
Non-current assets - Customer incentives	11,439	11,188	251	
Total customer incentives	<u>\$ 12,024</u>	<u>\$ 11,758</u>	<u>\$ 266</u>	

Note: Amounts may not add due to rounding



## General & Administrative

General & Administrative expense is taken from the income statement. Expenses that are non-cash such as stock-based compensation or are considered one-time items are removed from the total. The resultant number is divided by the total megawatts installed during the quarter to calculate the total general & administrative cost per watt.

	<u>Q1'20</u>
General & Administrative (in thousands)	
General & Administrative (IS)	\$ 28,026
Less: Stock-based compensation (BS Note)	(2,583)
Less: One-time expenses (Company's books)	(680)
<b>General &amp; Administrative Costs</b>	<b>\$ 24,763</b>
General & Administrative costs (in millions)	\$ 24.8
Divide: MW installed	56.1
<b>General &amp; Administrative costs per watt</b>	<b>\$ 0.44</b>

### Note 16. Equity Compensation Plans

	<u>Q1'20</u>
Stock-based compensation included in operating expenses (in thousands)	
Cost of revenue - operating leases and incentives	\$ 368
Sales and marketing	956
Research and development	32
General and administrative	2,583
<b>Total stock-based compensation</b>	<b>\$ 3,939</b>

Note: Amounts may not add due to rounding



### Total Estimated Cost per Watt

The sum of installation cost per watt, sales & marketing cost per watt, and general & administrative cost per watt results in the total estimated cost per watt for the period.

	<u>Q1'20</u>
Installation	\$ 1.95
Sales & Marketing	1.41
General & Administrative	<u>0.44</u>
<b>Total costs per watt</b>	<b><u><u>\$ 3.80</u></u></b>