



## Estimated Cost per Watt Methodology

May 9, 2016

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 cost per watt for the residential business 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, 2016.

### **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 change in work in progress - system equipment costs and the cost of revenue – operating leases and incentives less associated non-cash expenses (stock-based compensation and depreciation and amortization). This total is then divided by the megawatts installed in the quarter.

### **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. This portion includes costs associated with the C&I business segment as well as non-cash stock-based compensation. These amounts are removed from the total sales & marketing costs. To calculate the total sales & marketing cost per watt, the portion of sales & marketing expense that is capitalized, including work in progress – initial direct costs and customer incentives, is divided by the megawatts installed during the period. The portion that flows through the income statement is divided by the megawatts booked during the quarter. These two components are then summed to reach the total sales & marketing cost per watt.

## Installation Costs per Watt Calculation

	Q1'16
Installation (in thousands)	
System equipment costs (BS Note)	\$ 101,091
Plus: WIP - System equipment costs (Company's books)	722
Plus: Cost of revenue - operating leases and incentives (IS)	37,760
Less: Stock-based compensation (BS Note)	(303)
Less: Depreciation and amortization (BS Note)	(8,316)
<b>Total installation costs</b>	<b>\$ 130,954</b>
Installation (\$ / W)	
Total installation costs (in millions)	\$ 131.0
Divided: MW installed	54.9
<b>Installation cost per watt</b>	<b>\$ 2.39</b>

Note 4. Solar Energy Systems (in thousands)	Q1'16	Q4'15	Change
Solar energy systems, net			
System equipment costs	\$ 994,179	\$ 893,088	\$ 101,091
Solar energy system inventory	52,223	70,493	(18,270)
Initial direct costs related to solar energy systems	194,741	171,081	23,660
Solar energy systems	1,241,143	1,134,662	106,481
Less: Accumulated depreciation and amortization	(40,821)	(32,505)	(8,316)
Solar energy systems, net	\$ 1,200,322	\$ 1,102,157	\$ 98,165

Consolidated Balance Sheet (in thousands)	Q1'16	Q4'15	Change
Inventories			
Solmetric inventory	\$ 514	\$ 510	\$ 4
WIP - System equipment costs	821	99	722
WIP - Initial direct costs	195	22	173
Inventories	\$ 1,530	\$ 631	\$ 899

Note 12. Equity Compensation Plans	Q1'16
Stock-based compensation included in operating expenses (in thousands)	
Cost of revenue - operating leases and incentives	\$ 303
Sales and marketing	-
Research and development	216
General and administrative	1,106
Total stock-based compensation	\$ 1,625

## Sales & Marketing Costs per Watt Calculation

Sales & Marketing (\$ in millions)		<u>Q1'16</u>
Initial direct costs related to solar energy systems (BS Note)	\$ 23.7	
Plus: WIP - Initial direct costs (Company's books)	0.2	
Plus: Customer incentives (Company's books)	1.3	
	<u>25.1</u>	
Divide: MW installed	54.9	
Initial direct costs per watt	\$ 0.45	
Sales & Marketing (IS)		\$ 12.6
Less: C&I sales & marketing	0.3	
Less: Stock-based compensation	-	
	<u>12.4</u>	
Divide: MW booked	66.4	
Non-capitalized Sales & Marketing costs per watt	\$ 0.19	
Initial direct costs per watt	\$ 0.45	
Plus: Non-capitalized Sales & Marketing cost per watt	0.19	
<b>Total Sales &amp; Marketing</b>	<b><u>\$ 0.64</u></b>	

Note 4. Solar Energy Systems (in thousands)	<u>Q1'16</u>	<u>Q4'15</u>	<u>Change</u>
Solar energy systems, net			
System equipment costs	\$ 994,179	\$ 893,088	\$ 101,091
Solar energy system inventory	52,223	70,493	(18,270)
Initial direct costs related to solar energy systems	<u>194,741</u>	<u>171,081</u>	<u>23,660</u>
Solar energy systems	1,241,143	1,134,662	106,481
Less: Accumulated depreciation and amortization	(40,821)	(32,505)	(8,316)
Solar energy systems, net	<u>\$ 1,200,322</u>	<u>\$ 1,102,157</u>	<u>\$ 98,165</u>

Consolidated Balance Sheet (in thousands)	<u>Q1'16</u>	<u>Q4'15</u>	<u>Change</u>
Inventories			
Solmetric inventory	\$ 514	\$ 510	\$ 4
WIP - System equipment costs	821	99	722
WIP - Initial direct costs	195	22	173
Inventories	<u>\$ 1,530</u>	<u>\$ 631</u>	<u>\$ 899</u>

Note 12. Equity Compensation Plans (in thousands)	<u>Q1'16</u>
Stock-based compensation included in operating expenses (in thousands)	
Cost of revenue - operating leases and incentives	\$ 303
Sales and marketing	-
Research and development	216
General and administrative	<u>1,106</u>
Total stock-based compensation	<u>\$ 1,625</u>

Consolidated Balance Sheet (in thousands)	<u>Q1'16</u>	<u>Q4'15</u>	<u>Change</u>
Current assets - Customer incentives	\$ 18	\$ -	\$ 18
Non-current assets - Customer incentives	1,258	-	1,258
Total customer incentives	<u>\$ 1,276</u>	<u>\$ -</u>	<u>\$ 1,276</u>

Note 17. Segment Information (in thousands)	<u>C&amp;I</u>
Operating expenses:	
Sales and marketing	266
General and administrative	2,388

## General & Administrative

General & Administrative expense is taken from the income statement. Costs associated with our C&I business segment, non-cash stock-based compensation portion and any one-time items such as expenses related to the terminated SunEdison transaction are removed from the total. The resultant number is divided by the megawatts installed during the quarter to calculate the total general & administrative cost per watt.

	<u>Q1'16</u>
General & Administrative (in thousands)	
General & Administrative (IS)	\$ 22,920
Less: C&I general and administrative	(2,388)
Less: Stock-based compensation (BS Note)	(1,106)
Less: One-time expenses (MD&A Note)	(2,623)
<b>General &amp; Administrative Costs</b>	<b>\$ 16,803</b>
General & Administrative costs (in millions)	\$ 16.8
Divide: MW installed	54.9
<b>General &amp; Administrative costs per watt</b>	<b><u><u>\$ 0.31</u></u></b>
Note 12. Equity Compensation Plans (in thousands)	<u>Q1'16</u>
Stock-based compensation included in operating expenses (in thousands)	
Cost of revenue - operating leases and incentives	\$ 303
Sales and marketing	-
Research and development	216
General and administrative	1,106
Total stock-based compensation	<u><u>\$ 1,625</u></u>
Note 17. Segment Information (in thousands)	<u>C&amp;I</u>
Operating expenses:	
Sales and marketing	\$ 266
General and administrative	\$ 2,388
Management Discussion and Analysis (in thousands)	
Expenses related to proposed SunEdison transaction	\$ 2,623

**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>Q1'16</u>
Installation	\$ 2.39
Sales & Marketing	0.64
General & Administrative	<u>0.31</u>
<b>Total costs per watt</b>	<b><u><u>\$ 3.34</u></u></b>