

To: Utah Public Service Commission
Heber M. Wells Building
160 East 300 South
Salt Lake City, UT 84114

From: Vivint Solar, Inc.
Tanguy Serra, CEO
Brendon Merkley COO

Date: November 22, 2011

Dockets: Docket 11-035-104--In the Matter of an Investigation into Extending and Expanding the Solar Incentive Program and Possible Development of an Ongoing Program, and

Docket 07-035-T14 – In the Matter of the Approval of Rocky Mountain Power’s Tariff P.S.C.U. No. 47, Re: Schedule 107 - Solar Incentive Program

Subject: Comments in Response to the Division of Public Utilities’ *Solar Incentive Report: Division Solar Incentive Program Review and Recommendations*

Dear Chairman Boyer, Commissioner Allen, Commissioner Campbell, and Commission Staff,

Vivint Solar is an affiliate company of Vivint, Inc. based in Provo, Utah. Vivint, Inc. is now the second largest home security/home automation company in North America. Operating from offices throughout the United States and Canada, the company services well more than 500,000 customers. Vivint is dedicated to enhancing security, convenience and energy efficiency. We do this through a combination of award-winning customer service and smart in-home technology.

In October 2011, Vivint Solar was launched as part of the Energy division at Vivint Inc. Built on the vision of renewable energy, Vivint Solar is dedicated to designing and installing simple, affordable solar solutions. Unlike traditional solar energy systems that require a substantial initial investment, Vivint Solar offers consumers unique financing arrangements that enable them to enjoy the benefits of solar with little to no up-front cost. The company provides award-winning service and support while saving customers money and protecting the environment.

Vivint Solar recently announced that we received a commitment of renewable energy tax equity from a subsidiary of U.S. Bancorp to support the financing of \$75 million in residential solar energy systems in the United States. This fund will finance a projected pipeline

of 2,400 residential solar installations in New Jersey, Utah, Hawaii and New York (<http://www.vivintsolar.com/press/library/vivint-solar-financing>).

Our operations are currently focused on established solar markets outside Utah but we would like to see the state of Utah support the solar industry such that we can extend our offering to homeowners in our home state.

To that end, we are grateful to Rocky Mountain Power and to the Public Service Commission for this opportunity to submit our comments on a proposed Solar Incentive Program.

Vivint Solar is quickly scaling up and hopes to soon become one of the largest solar service providers in the nation. The Utah market will be key to this growth. With an appropriately sustainable Solar Incentive Program, Vivint Solar could quickly provide an offering to homeowners in Utah. There is a great deal of interest and demand for solar power here in Utah. Servicing that demand would create dozens and even hundreds of jobs within Vivint Solar alone for sales and marketing, engineering, data entry, and installation technicians. This job creation would most directly target the hard-hit housing industry as many of the roles in solar development leverage similar skills from construction trades.

Additionally, Utah’s climate and geography create an excellent environment for solar energy production. The clear and dry climate provide abundant access to the sun’s energy. The Department of Energy’s solar production estimating tool, PVWatts, provides for easy comparisons of different geographies. Comparing the annualized average kWh/m2/day (a measure of solar energy available) across major cities shows that our headquarters in Provo has 17 percent better solar access than New Jersey – a leading solar market. Provo provides 34 percent better solar access than Portland and lags behind Los Angeles by less than two percent and behind Phoenix by only 12 percent.¹ Solar power in Utah is an abundant source of energy.

Vivint Solar has actively participated in the Solar Incentive Program Workgroup and we have been grateful for this forum. Unfortunately, in our view, the Workgroup did not develop nor apply appropriate decision-making criteria during its evaluation of an Incentive Program. Consequently, discoveries and arguments mustered in support of the Incentive Program were

¹ Dept. of Energy, NREL PVWatts Version 2 calculator, http://mapserve3.nrel.gov/PVWatts_Viewer/index.html

City	State	kWhr/m2/day	Change from Provo, UT.
Portland	OR	4.05	-34.3%
Boston	MA	4.23	-28.6%
Newark	NJ	4.63	-17.5%
New York	NY	4.63	-17.5%
Provo	UT	5.44	0.0%
Denver	CO	5.5	1.1%
Los Angeles	CA	5.54	1.8%
Phoenix	AZ	6.18	12.0%

at times dismissed without due consideration. The resulting recommendation to increase the Incentive Program to 214 kW is arbitrary and insignificant. Contextually, 217 kW is equivalent to less than 50 residential solar installations in average solar markets.

The Commission's July 7th Order states that the purpose of the Workgroup was "to investigate extending and expanding the Program and, if appropriate, develop an ongoing program designed to be cost-effective." We agree with and support the Division's recommendation to extend the pilot program. However, we assert that this extension should be the means to continue discussion and development of a sustainable longer-term program.

The next question is cost-effectiveness per the Commission's July 7th Order quoted above. The Division's report states that "the current Commission program appears to be cost-effective under the utility cost test, which should generally make the program beneficial to the Company's ratepayers." This cost-effectiveness finding lends unequivocal support to extension and expansion of the program.

Recommendations for an Expanded Solar Program

Successful businesses are built and grow in predictable and sustainable regulatory environments. If a business model depends on winning a lottery it is hard to justify capital investments in that business. The current Solar Incentive Program functions much like a lottery which awards a few dozen projects statewide. In order for Vivint Solar, Garbett Homes, or other businesses to invest capital in creating jobs and promoting economic growth in the renewable energy market, there must be greater confidence that an incentive will exist independent of whether our program application is number 25 or 2,500.

We encourage Rocky Mountain Power and the Commission to provide an incentive rate that allows for a large and sustainable solar program.

Rocky Mountain Power supports several demand side management (DSM) programs that yield benefit to cost ratios that are inferior to returns possible from a solar incentive program. These DSM programs have no funding cap. Where a solar incentive program provides a superior return, it too should not be limited to arbitrary program caps.

The following chart is a summary from Rocky Mountain Power’s “2010 Annual Energy Efficiency and Peak Reduction Report – Utah:”

Program	Utility Cost Test Results				
	Levelized \$/kWh	Costs	Benefits	Net Benefits	B/C Ratio
2010 Residential Energy Efficiency Portfolio	0.0546	\$23,598,752	\$33,140,692	\$9,541,940	1.404
2010 Load Control Portfolio	na	\$68,534,730	\$102,184,843	\$33,650,113	1.491

These energy efficiency programs carry benefit to cost ratios of roughly 1.4-1.5. These are cost-effective programs without any program cap.

This next chart is the summary page from Rocky Mountain Power’s model analysis of the cost-effectiveness of a Solar Incentive Program:

Scenario	Orientation	MW	kWh	NPV Benefits per kWh	Incentive per Watt	Admin Cost %	Utility Benefits	Utility Costs	UCT Net Benefits	UCT BC Ratio
4	South	1	1,583,997	\$1.4268	\$1.55	10%	\$2,260,068	\$1,705,000	\$555,068	1.33
5	South	1	1,583,997	\$1.4268	\$1.55	15%	\$2,260,068	\$1,782,500	\$477,568	1.27
6	South	1	1,583,997	\$1.4268	\$1.25	10%	\$2,260,068	\$1,375,000	\$885,068	1.64
7	South	1	1,583,997	\$1.4268	\$1.25	15%	\$2,260,068	\$1,437,500	\$822,568	1.57
8	South	1	1,583,997	\$1.4268	\$1.00	10%	\$2,260,068	\$1,100,000	\$1,160,068	2.05
9	South	1	1,583,997	\$1.4268	\$1.00	15%	\$2,260,068	\$1,150,000	\$1,110,068	1.97
Source	Data Request	Data Request	PV Watts, Line Losses from PacifiCorp	PV Watts, IRP Decrements		\$68,534,730	\$102,184,843	\$33,650,113	1.491	H/J

We note that the UCT benefit to cost ratios at the current incentive rate (\$1.55/w) are roughly 1.3. Adding a new incentive program consideration of \$1.00 incentive per watt yields a benefit to cost ratio over 2.0. Comparing a solar incentive program at this incentive rate makes it a superior allocation of capital for Rocky Mountain Power.

We do not intend to promote any given incentive rate. Our position is simply that a solar incentive program at certain rates can provide superior benefit to cost ratios under the utility cost test than existing uncapped programs such as energy efficiency and other demand-side management programs. A solar program should be considered similarly because of its contributions to reducing demand during high load and high cost times of the day.

The actual incentive rate is less important than predictability. Vivint Solar has a much stronger preference for a lower incentive and a larger program than we do in maintaining the current incentive at its current or proposed very limited program size.

Therefore, we recommend that the Company and the Commission establish an incentive at a rate that provides a UCT B/C ratio which would allow for an uncapped Solar Incentive Program.

In conclusion, we appreciate the Division's work on this issue. We agree with the recommendation to extend the program while stakeholders work towards an expanded, longer-term program. We agree with the Division's statement that a Solar Incentive Program can be cost-effective and beneficial to ratepayers.

In order to foster economic growth and provide the market with a stable regulatory framework, we look forward to working together to develop a well-designed and uncapped Solar Incentive Program for the State of Utah. Thank you again for your consideration.

Sincerely,

Tanguy Serra
CEO, Vivint Solar, Inc.

Brendon Merkley
COO, Vivint Solar, Inc.