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Division of Public Utilities

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MEMORANDUM

To: Utah Public Service Commission

From: Utah Division of Public Utilities
Chris Parker, Director
Energy Section
Artie Powell, Manager
Abdinasir Abdulle, Technical Consultant
Thomas Brill, Technical Consultant

Date: June 13, 2011

Ref: Docket No. 07-035-T14. – Schedule No. 107 – 2010 Annual Report of the Solar Photovoltaic Incentive Program

RECOMMENDATION (acknowledgement)

The Division of Public Utilities (Division) recommends that the Commission acknowledge the 2010 Solar Photovoltaic Incentive Program Annual Report as meeting the Commission's reporting requirement for the program. The Division also recommends that the Commission hold a Technical Conference to discuss, among other issues whether the installation of interval generation meters at every new site is cost effective and if or how the program should be extended or expanded.

ISSUE AND DISCUSSION

In its August 3, 2007 Order approving the tariff with certain conditions under Docket No. 07-035-T14, the Commission ordered the Company to provide an annual report of the Solar Photovoltaic Incentive Program (Schedule 107). The Commission ordered that this report shall, at a minimum, contain information on completed projects, program expenditures and recommendations for the following year.

In compliance with this Commission Order, on March 7, 2011 the Company filed its 2010 Solar Photovoltaic Incentive Program annual report. The Division reviewed the filing and evaluated it according to the requirements set forth by the Commission and found that this annual report complies with the Commission Order.

In this report, the Company provided an overview of the overall project goals, key program elements and design features. The report also summarized annual program results that included a listing of installed capacity and related expenditure data. The summary also included information about the number of annual applications, the number of projects that were completed, and the number of applications that were approved, denied, or withdrawn. The report also showed the number of contractors that performed the equipment installations along with the number of installations each contractor performed, and the number of customers served by each contractor. The report also detailed project marketing efforts, equipment availability issues, and allocation of program incentives. Finally, the report included recommendations for the upcoming year and the program data being collected. Among the recommendations is that the Company will

> Install interval generation meters at all new installations where cell phone reception is of sufficient strength. The Company will install standard monthly generation meters in the few cases where cell reception is not adequate. The Company will record interval data for the sites that have existing interval metering installed and for sites that will record interval data for the sites that have existing interval metering installed and for sites that will have interval data for the sites that will have standard production meters installed.

The Cadmus Group prepared System Output Correlation for Selected Sites. The results of this analysis, which are included in the report as Appendix 2, show that the overall weighed average realization rate was 108%. That is, the actual metered output of individual sites would be 108% of the output estimated using PV Watts Estimate (kWh). This shows that the PV Watts Estimate would provide a conservative but possible reasonable estimate of the output of individual sites. Based on this, the Division questions whether it is necessary or cost effective to install interval generation meters at every site. While the Division is supportive of maintaining a sample of

customers with such meters, the Division believes this issue deserves further discussion and possibly analysis before the Company commits in general to installing these meters.

The Division reviewed the cost-effectiveness tests in this report and noted that the program failed the Utility Cost Test (Benefit/Cost Ratio = .877). However, the Division notes that result is based on $2 incentive level. In its Order in Docket No. 07-035-T14, dated February 10, 2011, the Commission ordered that incentive level be lowered from its current level of $2 to $1.5 per Watt effective March 2011 to reflect the declining costs of installed solar photovoltaic systems.

The Division performed a sensitivity analysis of the cost-effectiveness test by simply eliminating the meter costs and reducing the incentive level to $1.55 while holding all other parameters of the test unchanged. These simple changes made the program cost effective as is shown in the Table below.

Table 1. Updated Cost-Effectiveness Test

All Measure	**Overall Results**				
	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (TRC) + Conservation Adder	0.5309	$1,174,898	$315,418	($859,480)	0.268
Total Resource Cost Test (TRC) + No Adder	0.5309	$1,174,898	$286,744	($888,154)	0.244
Utility Cost Test (UCT)	0.1477	$237,429	$286,744	$49,315	1.208
Utah Rate Impact Measure (URIM)		$573,537	$286,744	($286,793)	0.500
Participant Cost Test (PCT)		$847,992	$246,631	($601,361)	0.291
Lifecycle Revenue Impacts ($/kWh)				$0.0000003739	

In addition, the Division notes that program administrative costs represent about 38% of the Utility costs. The Division believes that the administrative cost is high and deserves to be revisited. A reduction of the administrative cost would make the program even more cost-effective.

The results of this sensitivity analysis coupled with the fact the that the 2011 IRP System Optimizer selected all available solar every year in both rebate cost scenarios[1] lead the Division to believe that an extension and an expansion of the program may be warranted. Therefore, the Division recommends that the Commission hold a technical conference in which the interested parties can, among other issues, discuss the appropriate way to extend and expand the program

CC: Dave Taylor, RMP
Michele Beck, CCS

[1] *Utah Utility Cost Buy-down for Solar PV Resources*
For Case 30—$1,744/kW utility program cost—System Optimizer selected the maximum annual amount per year (1.2 MW) for 2011 through 2028, amounting to 22 MW. The deterministic PVRR for this portfolio was $41.04 billion.

For Case 30a—$2,326/kW utility program cost—System Optimizer selected the maximum annual amount per year (1.2 MW) for 2011 through 2020, amounting to 12 MW. The deterministic PVRR for this portfolio was $3 million higher than the PVRR for the Case 30 portfolio.