

# **Solar Incentive Report: Division Solar Incentive Program Review and Recommendations**

**November 8, 2011**

## **Executive Summary**

The Utah Public Service Commission (Commission), in a July 7, 2011 Order, directed the Division of Public Utilities (Division) to form a workgroup and make recommendations regarding the Utah Solar Incentive Program. The Solar Incentive Program was a 5-year pilot program established by the Commission on August 3, 2007 in Docket No. 07-035-T14. The 5-year pilot program was for the 2007-2011 time period.

The July 7, 2011 Order directed the Division to report back by November 1, 2011 with recommendations, if any, about continuing or not continuing the program.<sup>1</sup> This report is the Division's response to the Commission's directive and does not necessarily reflect a consensus of the Workgroup.

With the expiration of the 5-year Utah Solar Incentive Program, an extension of the program for one additional year was discussed with the Workgroup with a small increase in the size of the program, while further discussions regarding a larger and longer-term program are held. The Division believes this is reasonable and recommends that the Commission extend the Utah Solar Incentive Program for one year, double the size of the annual kilowatts available to 214 kW in the Program, and increase the annual budget to \$385,000. The annual budget for the one-year extension is based upon the \$1.55 per watt incentive rate and an assumed 15 percent administrative cost.

Furthermore, the Division recommends that the Commission direct the formation of a new Solar Incentive Program Workgroup, and that a technical conference be scheduled in January 2012 to discuss a straw man proposal to be developed by the Division, the Office of Consumer Services (Office), and Utah Clean Energy, and the Utah Association of Energy Users. The purpose of the new Workgroup is to recommend a new Solar Incentive Program and to develop a new program design. The new Workgroup should have a goal of completing its work March 31, 2012. This extension of the current program will allow a bridge between the current 5-year Solar Incentive Program, set to expire at the end of 2011, and the development of a new program. In any case, the Division recommends that the continuation of the Utah Solar Incentive Program should not be extended beyond the life of the Federal tax credit, which currently ends on December 31, 2016. Assuming there is a new program through 2016, in late 2015 or early 2016, extending or revising this new program could be considered.

For the new Solar Incentive Program Workgroup, the Division will work with the Company, the Office, Utah Clean Energy, other representatives of the solar industry, and other interested parties.

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<sup>1</sup> The Division requested a change in the due date to November 8, 2011. The Commission granted this request.

## **Introduction**

On August 3, 2007 in Docket No. 07-035-T14, the Utah Public Service Commission (Commission) issued an Order approving a tariff for Rocky Mountain Power (Company) for a 5-year Solar Incentive Pilot Program (Program) over the 2007-2011 time period. The Program incentive was initially set at \$2.00 per watt, with incentives provided for up to 3 kW for residential installations and \$15 kW for non-residential installations. The annual Program capacity cap was 107 kW and divided into 57 kW for residential and 50 kW for non-residential. The 107 kW annual Program capacity cap resulted in a 5-year total Program capacity cap of 535 kW.

A key goal of the pilot program was to ascertain information on the potential for solar energy in Utah. In particular, critical information could be gained on integrating distributed photovoltaic (PV) resources, the role of solar power in meeting peak demand, and customer willingness to participate and make their own investments. In its August 3, 2007 Order, the Commission directed the Company to submit annual Program reviews by March 31 of each year. The Commission also directed the Company to provide a third year assessment of the Program to evaluate whether changes were warranted in the program, including the caps.

In approving the original five-year tariff in 2007, the Commission expressed its support for investigating the viability of distributed renewable resources in Utah, because it concluded substantial environmental and public-interest benefits could be cost-effectively derived from such a program.<sup>2</sup> The Commission recognized that a distributed solar program may be viewed differently than a traditional DSM program in terms of costs and benefits and so directed the Company, the Division, and the DSM Advisory Group to determine appropriate cost-effectiveness criteria and guidelines for a distributed solar program.<sup>3</sup>

Pursuant to this direction to investigate appropriate cost-effectiveness criteria and guidelines for a distributed solar program, the DSM Advisory Group included in its Docket No. 09-035-27 Report<sup>4</sup> the following recommendation:

Absent more appropriate economic tests, small-scale renewable resources may be evaluated on the same basis as energy efficiency and load management. The Commission may approve small-scale renewable resource projects that fail one or more of the economic tests but are determined to be in the public interest.<sup>5</sup>

The Commission concurred with this recommendation and added that if any of the economic tests fail, the Commission would consider arguments regarding whether the program is in the public interest for reasons other than economic efficiency.<sup>6</sup>

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<sup>2</sup> 07-035-T14 2007 Order, page 6.

<sup>3</sup> 07-035-T14 2007 Order, page 7.

<sup>4</sup> Docket No. 09-035-27, In the matter of the Proposed Revisions to the Utah Demand Side Resource Program Performance Standards. Issued October 7, 2009. (hereinafter 09-035-27 Order) at 3, 10-11. The Order in this docket established the Utility Cost Test as the threshold test for determining program prudence.

<sup>5</sup> 09-035-27 Order, page 4.

<sup>6</sup> 09-035-27 Order, page 15.

On September 30, 2010, the Company filed its third year assessment report in Docket No. 07-035-T14. In its third year assessment, the Company recommended that the Program terminate at the end of the year 2010, which was the fourth year of the original 5-year program. In making that recommendation, the Company proposed redirecting the Solar Incentive Program annual budget of \$314,500 to fund a battery energy storage demonstration project. In addition to providing Program assessment data and recommendations, the Company also addressed issues raised by parties concerning the Company's 2009 Annual Report.

The Commission issued a request for comments on the third year assessment report and the Company's proposal to redirect funding to the energy storage demonstration project. The Division, the Office, Utah Clean Energy, and several other parties submitted comments in response.<sup>7</sup> Their comments supported continuing the Solar Incentive Program through its original fifth year. The Division and the Office both supported the energy storage demonstration project.

Regarding compliance, the Office in a July 23, 2009 memorandum expressed a well-founded concern that there appeared to be a lack of compliance in returning the Attestation Certificates and that these certificates were critical in evaluating the Program. The use of the Attestation certificates was intended to develop solar output data, but the variable customer response led the Company to consider other options for more detailed data. In addition, the Attestation certificates did not provide information on generation during peak demand periods. The Office also recommended in a November 30, 2010 memorandum that future incentives be limited to orientation/peak demand solutions;<sup>8</sup> proportional reduction in incentive levels to match installation cost declines; and support for an energy storage demonstration project.

In response to comments by the Division, Office, Utah Clean Energy, and others, the Commission determined to continue the Solar Incentive Program for the full five years, but to reduce the customer incentives from \$2.00 per watt to \$1.55 per watt based upon the Division's determination that this change would make the program cost-effective. Funding for the battery energy storage demonstration project would come from other sources, possibly from the DSM surcharge. The Program 5-year authorization therefore ends at the conclusion of 2011; the Company's 5-year assessment is then due by March 31, 2012.

Additionally, the Commission addressed the Attestation Certificate issue in an August 5, 2009 letter to the Company by requiring the customer to install a generation meter base, upon which the Company installs a generation meter. In 2009 the Company installed interval production meters at selected sites in an effort to gather interval generation data.

On March 7, 2011, the Company filed its fourth Annual Report for the Solar Incentive Program for Year 2010. Company's 4-year Annual Report noted that the solar output from the systems with interval production meters correlated with (or exceeded) the modeled production in Solar PV Watts. The results

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<sup>7</sup> See <http://www.psc.utah.gov/utilities/electric/elecindx/2006-2009/07035T14indx.html>

<sup>8</sup> With respect to the orientation/peak demand issue, Exhibit 4 sets forth the Company's simulation of the orientation issue and demonstrates that there appears to be no advantage to trying to capture more of the daily peak period by orienting the solar panels to a more westerly direction.

of this analysis, which were included in the Annual Report as Appendix 2, showed that the overall weighed average realization rate was 108 percent of PV Watts modeling. That is, the actual metered output of individual sites was 108 percent of the output estimated using PV Watts Estimate (kWh). This showed that the PV Watts Estimate provided a conservative but reasonable estimate of the output of individual sites.

On March 24, 2011, the Commission issued a request for comments on the 2010 Annual Report. In addition to comments on the 2010 Annual Report, the Commission invited interested parties to address whether a continued or expanded solar program in Utah is appropriate and how that program might be structured. In response to its request for comments, the Commission received comments from the Division, the Office, Utah Clean Energy, and over seventy other parties.

In its review of the fourth Annual Report, in a November 30, 2010 memorandum the Division reviewed the cost-effectiveness tests for the Program and noted that the program was not cost effective based upon the Utility Cost Test for the first four years of the Program, with an average benefit-cost ratio of approximately 85 percent. Additionally, the Total Resource benefit-cost ratio averaged about 20 percent.<sup>9</sup> However, the Division noted that those results were based on a \$2 incentive level. Because the Commission ordered that the incentive level be lowered from \$2.00 to \$1.55 per Watt, effective March 2011, the Division performed sensitivity analysis of the cost-effectiveness tests 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.

In addition, the Division's November 30, 2010 memorandum noted that program administrative costs represented about 38 percent of the Utility costs. The Division asserted that the administrative cost was high and deserved to be revisited because a reduction of the administrative cost would make the program even more cost-effective. Additionally, based on the output from the interval production meters compared with PV Watts estimates, the Division questioned whether it was necessary or cost effective to install interval generation meters at every site.

The results of the Division's sensitivity analysis coupled with the fact the that the 2011 IRP System Optimizer selected all available solar every year in both rebate cost scenarios<sup>10</sup> led the Division to believe that an extension and an expansion of the program may be warranted. Therefore, the Division recommended that the Commission hold a technical conference in which interested parties could, among other issues, discuss the appropriate way to extend and expand the program.

The Office observed that the 2010 Annual Report indicated the Program was not cost effective for any of the standard cost effectiveness tests. In light of the Program's failure to meet the cost effectiveness tests, the Office believed the following issues warranted additional analysis:

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<sup>9</sup> See annual reports at [www.psc.state.ut.us/utilities/electric/elecindx/2006-2009/07035T14indx.html](http://www.psc.state.ut.us/utilities/electric/elecindx/2006-2009/07035T14indx.html).

<sup>10</sup> "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." PacifiCorp 2011 IRP, pages 243-244.

- Could program modification help it to become cost effective? For example, could the program require certain placement of the solar resources to better maximize benefits to the system?
- Are there solar technologies forthcoming that will allow the Program to become more cost effective on both a cost and a benefit perspective and if so what is the expected timeframe?

The Office in a June 9, 2011 memorandum recommended that the Commission initiate an investigative docket to determine the Program's future and schedule a technical conference for fall of 2011.

Utah Clean Energy and the majority of all other commenting parties expressed support for continuing and expanding the solar incentive program.<sup>11</sup> Utah Clean Energy in a June 9, 2011 memorandum argued that there was sufficient evidence to support the continuation and expansion of the Solar Incentive Program, including the following: IRP analysis indicated that a solar incentive program is a low-cost resource for the utility; the current \$1.55/watt program passes the utility cost; and the program also provides other benefits, both energy- and non-energy related, including distributive energy benefits, environmental benefits, and risk mitigating benefits. Utah Clean Energy recommended designing an expanded program in order to continue the solar rebate program in a cost effective and administratively efficient manner.

On July 7, 2011, in Docket 07-035-T14, the Commission issued an Order on the 2010 Annual Report of the Solar Incentive Program and a Notice of Agency Action. The Commission concluded that the Company's 2010 Annual Report generally met the requirements identified in its August 3, 2007, Order. The Commission also opened an informal investigative docket (Docket No. 11-035-104) and directed the Division to organize and lead a Workgroup to investigate extending and expanding the Program and, if appropriate, develop an ongoing program designed to be cost-effective.<sup>12</sup>

The Workgroup ordered by the Commission met two times in September of 2011 to consider whether a continued or expanded solar program in Utah is appropriate and how that program might be structured. This report represents the Division's opinions and recommendations, and is not necessarily a Workgroup consensus.

## **Cost of Resource**

Costs for photovoltaic systems have noticeably declined over the last three years. The Company reports a drop from \$10.37 per watt at the beginning of the Program to approximately \$6.50 per watt by early fall 2011.<sup>13</sup> NREL's Solar Advisor Model uses costs in the range of \$6-7 per watt.<sup>14</sup> Nationally, large commercial is lower, and in the range of \$3.75-\$4.50 per watt for rooftop solar.<sup>15</sup>

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<sup>11</sup> Commission Order on 2010 Annual Report, Docket 07-035-T14, page 5.

<sup>12</sup> Commission Order on 2010 Annual Report, Docket No. 07-035-T14, pages 5-6.

<sup>13</sup> Exhibit 1. Note that the \$6.50 per watt cost is best documented in Oregon programs. PacifiCorp representative Erik Anderson speculated that the Utah costs per watt are higher due to the small size caps which magnify the relative installation costs.

<sup>14</sup> See <https://www.nrel.gov/analysis/sam/>

<sup>15</sup> Lazard's Levelized Cost of Energy Analysis, Version 5.0, 2011, <http://www.lazard.com/>

In evaluating the solar incentive program the Division notes that there are significant state and Federal incentives available for persons and businesses that want to install solar photovoltaic and other renewable systems in addition to the solar incentive program approved by the Commission. While not discussed at length in the workgroup, the Division notes that Federal (and state) tax credits are available through 2016. The Federal Residential Renewable Energy Tax Credit of 30 percent covers solar water heating and photovoltaic systems, as well as other renewable technologies. This Federal tax credit began January 1, 2006, and is scheduled to expire on December 31, 2016. A residential taxpayer may claim a renewable tax credit of up to 30 percent for qualified expenditures for a system that serves residential dwellings and are used as the taxpayer's residence.

For solar-electric property, there is no maximum tax credit for systems placed in service beginning January 1, 2009, but systems placed in service earlier had a maximum credit of \$2,000. (The residence served by the solar system does not have to be the taxpayer's principal residence.) For solar water-heating property, there are similar conditions, as well as equipment performance certification; at least half the energy used to heat the dwelling's water must be from solar for the solar water-heating expenditures to be eligible. The tax credit does not apply to swimming pools or hot tubs.<sup>16</sup>

In July 2011, the Energy Information Administration released an updated study on Federal energy subsidies. Relative to their share of total electricity generation, renewable energy sources received a large share of direct Federal subsidies and support in FY 2010. For example, renewable fuels accounted for 10.3 percent of total electric generation but received 55.3 percent of Federal subsidies and support. In particular, Solar receives 8.2 percent of total Federal subsidies and support. Subsidies and support include direct expenditures, tax expenditures, R&D, Federal electricity support, and load guarantees. Solar received \$409 million in direct expenditures, \$99 million in tax expenditures, \$287 million in R&D, and \$173 million in loan guarantees.

**Table 1. Current Federal Subsidies By Energy Type**

	( in Millions)	(as a percent of total)
Coal	\$1,189	10.0%
Natural Gas and Petroleum Liquids	\$654	5.5%
Nuclear	\$2,499	21.0%
Renewables	\$6,560	55.3%
Biomass	\$114	1.0%
Geothermal	\$200	1.7%

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<sup>16</sup> Other technologies that get the 30 percent tax credit and a description of the federal policy can be found at: [http://dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=US37F&re=1&ee=1](http://dsireusa.org/incentives/incentive.cfm?Incentive_Code=US37F&re=1&ee=1).

Hydropower	\$215	1.8%
Solar	\$968	8.2%
Wind	\$4,986	42.0%
Unallocated	\$75	0.6%
Transmission & Distribution	\$971	8.2%
Total	\$11,873	100.0%

A 2007 study by the Energy Information Administration calculated estimates of subsidies per unit of production (that is, in dollars per MWh). Both solar and wind had subsidies and support over \$20 per MWh compared to coal at \$0.44 per MWh and natural gas/petroleum liquids at \$0.25 per MWh.

During some of this time period, a similar solar PV rebate program was made available by the Utah Office of Energy Development (formerly the Utah State Energy Program). The rebate program was funded temporarily through the federal American Recovery and Reinvestment Act (ARRA). The program offers rebates for solar photovoltaic, solar thermal (hot water), and wind energy systems. In August 2011, the rebate for Solar PV was \$1.50 per DC watt with a \$4,500 cap for residential systems and \$25,000 for commercial systems. All systems were subject to reasonable cost and 25 percent of total system cost limits. An additional allocation of funds for the rebate program was made available on October 20, 2011. According to an Office of Energy Development press release dated October 2011 allocation, “Due to the remarkable popularity of the program, the OED is adding \$200,000 to the rebate fund’s original \$1 million. This expansion of the program means that at this time \$370,000 remains to be allocated.”<sup>17</sup>

An important caveat that EIA acknowledges: the report is a one year snapshot of a specific type of subsidies and does not look at historical subsidies to fossil fuels/nuclear, including incentives embedded in the federal tax code for fossil fuels. The report states, “Focusing on a single year's data does not capture the imbedded effects of subsidies that may have occurred over many years across all energy fuels and technologies.” Additionally, the Treasury Grant program created in place of tax credits front-loaded expenditures, leading to “much higher overall electricity subsidy estimates for renewable resources in FY 2010.” Additionally, the EIA report looks only at federal subsidies, and does not look at state incentives (e.g. there is no severance tax assessed for coal in Utah, which is a subsidy for the production of coal etc).

Utah Clean Energy provided to the Division two papers that present a detailed discussion of energy subsidies generally or are critical of the EIA methodology. These papers are “What Would Jefferson Do?” by Nancy Pfund and Ben Healy, published by DBL Investors, September 2011; and, “EIA Energy Subsidy Estimates: A Review of Assumptions and Omissions,” By Doug Koplow, published by Earth Track, Inc., Cambridge, MA, March 2010, [www.earthtrack.net](http://www.earthtrack.net).

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<sup>17</sup> Office of Energy Development News Release, Rebate Program for Solar & Wind Energy Systems Expanded October 20, 2011. URL: <http://www.energy.utah.gov/docs/solarrebates.pdf>

The Division includes this information in order to highlight that significant incentive funds are available to persons and businesses that are interested in solar installation. At this time the Division has received little information regarding whether or not the Commission-sponsored program caused more PV systems to be installed than otherwise would have been. Nevertheless, as discussed previously, 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.

## **IRP Results**

The Company's 2011 IRP includes solar photovoltaic resources selected to comply with Oregon requirements. These solar additions totaled 19 MW through 2030 and appear to be fixed amounts in the IRP. The Company's IRP models also selected somewhat larger quantities of solar water heating amounting to a cumulative total of 30 MW through 2030. The Company indicates that the potential for photovoltaic resources in Utah will be studied in conjunction with Sandia National Laboratories (see page 133). The Sandia study is not yet available.

On pages 243 and 244 of the IRP, the Company discusses a scenario the IRP model was allowed to select additional cost-effective solar. Given that the relatively small amount of additional cost-effective PV was made available, the Company's model's selected the PV. What is not clear is whether all of the costs to the Company were included in this analysis. For example, additional PV penetration in a particular area may require the Company to expend additional funds on the Company's distribution system to handle the PV load variations; or whether additional funds need to be made available to the Company to insure recovery for the systems that back-up the distributed PV generation.

Although Sandia study is not yet available, the Company recently reported on a study it completed of a neighborhood-level, utility-scale simulated solar project. This study suggested that solar would contribute little or nothing to the utility's need for peaking resources.<sup>18</sup>

## **Program Results to Date**

The original design of the Solar Incentive Program was for a 5-year pilot program over the 2007-2011 time period. The Program incentive was initially set at \$2.00 per watt, with incentives provided for up to 3 kW for residential installations and 15 kW for non-residential installations. The annual Program capacity cap was 107 kW and divided into 57 kW for residential and 50 kW for non-residential. The 107 kW annual Program capacity cap resulted in a 5-year total Program capacity cap of 535 kW. The annual budget of \$314,500 over the five years resulted in a total program budget of \$1,572,500.

For the year 2010 Solar Incentive Program, there were 60.6 kW installed and \$121,231 in incentives for residential installations. Non-residential installations are made up of 50.2 kW, with \$100,359 in

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<sup>18</sup> "Roof Top Solar Capability," presentation, PacifiCorp, October 2011.

incentives. Total installed kW capacity was 110.8, with total expenditures \$312,298. Administrative costs, however, were unusually high at a total of \$90,708, or 38 percent of total program costs.

Program applications received in 2010 totaled 90. Of the 2010 Program applications, 32 were approved and completed and 27 were dropped, and 31 were added to the 2010 waiting list. However, the approved and completed rate of 32 out of 90, or about one-third, is lower than in previous years because the number of applicants increased. Over the four years of the Program, the approved and completed rate has averaged about one-half of applications. With the waiting list for each year, all of the available rebate funds have been fully allocated to date. The Division notes that each year there was consistently approximately 33 systems completed, which is notably less than the original applications as can be seen in Table 2. A future program may need to address the issue of applicants dropping out of the program. Funding availability for solar equipment was the most commonly cited reason for cancelled projects. The Division notes that as set forth in Table 2, slightly more kW has been installed under the Program than was approved by the Commission.

**Table 2. Summary of Program Results (2007-2010).**

	2007	2008	2009	2010	Total
Residential kW	54	53	45	61	213
Non-residential kW	3	72	66	50	192
Program Expenditures (thousands)	\$143	\$342	\$316	\$312	\$1,114
Applications Received	43	48	74	90	255
Projects Completed	28	33	33	32	126
UCT Benefit Cost Ratio	0.81	0.84	0.85	0.88	NA

### **Solar Incentive Workgroup Activities**

The Workgroup ordered by the Commission met two times in September of 2011 to consider whether a continued or expanded solar program in Utah is appropriate and how that program might be structured. Participants, in addition to the Company, the Division, and the Office, included Utah Clean Energy, the Utah Association of Energy Users, local government representatives, commercial and residential builders, financial institutions, distributed solar developers and installers, individuals, and public interest organizations.

During the workgroup meetings, participants began preliminary discussions on a range of issues pertaining to those outlined in the Commission's Order. Alternative proposals for expansion were discussed; however, given the limited time, the workgroup discussions did not go into any detail on an

expanded program design and a consensus on this matter was not achieved. Exhibits 2 and 3 are the agendas of the two workgroup meetings held.

## **Division Recommendations**

With the expiration of the 5-year Utah Solar Incentive Program, an extension of the program for one additional year was discussed with the workgroup with a small increase in the size of the program while further discussions regarding a larger and longer-term program are held. The Division believes this is reasonable and recommends that the Commission extend the Utah Solar Incentive Program for one year, double the size of the annual kilowatts available to 214 kW in the Program, and increase the annual budget to \$385,000. The annual budget for the one-year extension is based upon the \$1.55 per watt incentive rate and an assumed administrative cost of approximately 15 percent.

Furthermore, the Division recommends that the Commission create a new Solar Incentive Program Workgroup, and that a technical conference be scheduled in January 2012 to discuss a straw man proposal to be developed by the Division, the Office, and Utah Clean Energy, and Utah Association of Energy Users. The purpose of the new Workgroup is to recommend a new solar incentive program and to develop a new program design. The new workgroup should have a goal of completing its work by March 31, 2012. This extension of the current program will allow a bridge between the current 5-year Solar Incentive Program, now set to expire, and the recommendations for a new program. In any case, the Division recommends that the continuation of the Utah Solar Incentive Program should not be extended beyond the life of the Federal tax credit, which currently ends on December 31, 2016. Assuming there is a new program through 2016, in late 2015 or early 2016, extending or revising this new program could be considered.

For the new Solar Incentive Program workgroup, the Division will work with the Company, the Office, Utah Clean Energy, other representatives of the solar industry, and other interested parties.

The following are the Division's recommendations that should be implemented with the doubling of the program size.

1. The Solar Incentive Program should be extended for one year, with the annual kilowatts available doubled to 214 kW. This would increase the annual budget to \$385,000, assuming a 15 percent administrative cost and a \$1.55 per watt incentive. The incentive should remain at its current level of \$1.55 per watt. The Program, as currently implemented, passes the Utility Cost Test at this level. Temporarily extending the program will provide more time for the development of an ongoing program.
2. Program administrative costs should be much lower (in the range of 10-15 percent of the total annual incentive payments), as compared to the current program administrative costs of 38 percent of the Program incentive and meter costs. (The Utah State Energy Program, in a similar program, determined administrative costs were approximately 5 percent.) An expanded program will bring economies of scale and efficiencies that will enable the Company, or its designated

Program administrator, to administer the program much more cost-effectively. A cap on the administrative costs will help maximize program operational efficiency.

3. The size cap of 15 kW for commercial and the distribution of eligible renewable energy credits will remain the same for this one-year extension of the Program unless and until the Commission approves any future changes or the program expires without a new one ordered.
4. A new workgroup should be organized to consider a new solar incentive program that would continue through 2016. A technical conference should be scheduled for January 2012 to consider a preliminary proposal constructed by the Division, the Office, Utah Clean Energy, and the Utah Association of Energy Users. The goal of the work group should be to complete its work and make a recommendation to the Commission by March 31, 2012.

## **Conclusions**

The Division concludes that based upon the cost effectiveness of the current Program, it appears to be in the public interest to continue a solar incentive program. As explained in the above report, the Division recommends that the Commission issue an order to continue the current program for one year and double the size of the program. The Division also recommends that the Commission order a new workgroup be created to study outstanding issues regarding the possible implementation of a continuing program. The Division also recommends that a technical conference for this new workgroup be noticed up in mid-to-late January.