



May 24, 2011

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

RE: Salt Lake County and Salt Lake City Comments on *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; Request for Comments*

Dear Public Service Commissioners:

In response to your recent request for public comment on *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*, we respectfully submit the following comments for your consideration. Thank you for the opportunity to provide comments on this important issue. We are pleased to have been involved in this Docket over the years and consider this effort to be an important first step in assessing the full value of distributed solar energy resources. We once again thank the Public Service Commission, Rocky Mountain Power, and all involved stakeholders for all their efforts to date on this Docket and Program.

As we have mentioned in prior comments on this Docket, Salt Lake City and Salt Lake County, through our Solar Salt Lake Partnership, have earned the distinguished designation as one of 25 US Department of Energy Solar America Communities in the nation. Our innovative Solar Salt Lake Partnership seeks to remove barriers to the adoption of distributed solar energy and increase the amount of solar installed City and County-wide by at least 10 MW (or 10,000 new installations) by the year 2015. In addition to this goal, we are working on numerous initiatives within our respective governments to identify and enable viable, cost-effective solutions to the complex environmental and energy-related challenges of today. We are committed to pursuing efforts that simultaneously reduce harmful air pollution and greenhouse

gas emissions, improve our quality of life, generate new economic development opportunities, and advance cost-effective, secure, and stable energy resources for our constituents.

To that end, we fully support a continued and expanded solar incentive program and believe that an expanded program can be an economical resource for the utility and ratepayers, while also maximizing solar energy's unique benefits for our constituents. We believe the following reasons justify the continuation and expansion of the solar incentive program:

1. As was noted in our comments on the Program's three-year assessment (filed with the Commission on 11/30/10), the Program has the potential to be more cost-effective with lower administrative costs. In Rocky Mountain Power's cost-benefit analysis of the program (provided in their Three-Year Assessment Report), the program passed the Utility Cost Test in the two scenarios modeled with lower administrative costs (5 and 10 percent). This suggests that an expanded solar program (with economies of scale and lower administrative costs) could be similarly cost-effective. As such, we recommend that the Commission and Rocky Mountain Power continue and expand the solar incentive program, making any necessary modifications to the program structure to create a cost-effective program.
2. In their 2011 Integrated Resource Plan, PacifiCorp modeled two distributed solar incentive program scenarios to replicate the costs to the utility to provide a \$2/watt and a \$1.50/watt solar rebate program. The 2011 IRP indicates that model selected the maximum annual amount of distributed solar per year (1.2 MW of distributed solar – a fixed amount selected by PacifiCorp in the modeling assumptions) in both rebate cost scenarios.<sup>1</sup> Given that the model selected all of the distributed solar it was allowed to select, this suggests that an expanded solar incentive program can be a low-cost resource for ratepayers. It is likely that the model would have selected more solar had there been more available to select. As such, we recommend that the Commission and Rocky Mountain Power expand the current solar incentive program and consider removing the program's annual cap to encourage significant investments in distributed solar in the residential and commercial sectors.
3. As we noted in our prior comments on this Docket, a Commission Order on Docket 09-035-27 states the following: "we concur with the recommendation to evaluate small-scale renewable resources, such as solar photovoltaic projects on a similar basis as energy efficiency and load management until other economic tests are available. Thus, all five tests will be performed. Should any of the tests fail, the Company and parties may present arguments, and we shall consider, whether the program is in the public interest for reasons other than economic efficiency."<sup>2</sup> We believe there is reason to conclude that an expanded solar incentive program can be cost-effective for the utility and rate-payers, if properly designed. In addition, and in accordance with the aforementioned Commission Order, we believe that an expanded solar program would also be in the public interest for several reasons, including:

- Distributed solar PV produces no harmful air pollutants or greenhouse gases to generate electricity; thus, greater penetrations of solar PV could help reduce emissions that contribute to poor air quality days along the Wasatch Front (by reducing the need to burn natural gas at plants located in the Salt Lake Valley). Similarly, solar PV deployed in greater penetrations can help reduce greenhouse gas emissions and provide an important financial hedge against the risks of changing climate conditions, a reliance on finite fossil fuels, and volatile energy costs. Going forward, Salt Lake City and the Utah Transit Authority would like to deploy emission-free solar at the TRAX stations to help further mitigate the impacts on the regional air shed of our electric rail system. An expanded solar incentive program could help facilitate this type of innovative air quality/transportation solution to address our air quality challenges. As such, we believe the air quality benefits of solar technologies should be given full consideration as a public benefit.
- Distributed solar PV can help preserve our precious and limited water and natural resources, which is an additional benefit to the general public worth considering. A report conducted by the Western Resource Advocates and Environmental Defense Fund notes the important water savings benefits that solar PV (and other renewable energy resources) can provide in the arid southwest:

Conventional fossil fuels used for electricity generation and transportation consume considerable amounts of water. For example, thermoelectric power plants in Arizona, Colorado, New Mexico, Nevada, and Utah consumed an estimated 292 million gallons of water a day (MGD) in 2005 – approximately equal to the water consumed by Denver, Phoenix, and Albuquerque, combined. Moreover, water use for power production in the Rocky Mountain/Desert Southwest region is projected to grow by 200 MGD 2030...In contrast, clean renewable sources of energy and energy efficiency can provide important water savings. Wind and solar photovoltaics use virtually no water during operation, and generating power from methane gas captured at landfills or wastewater treatment plants consumes no water...Western states are endowed with high-quality wind, solar, and geothermal resources. Tapping these renewables will play an important role in meeting the region's future energy and water demands.<sup>3</sup>

- Solar is a demonstrated economic driver in surrounding states, creating jobs and stimulus to local economies. With our abundant solar resource, a rapidly growing population, ample roof space and numerous 'brownfield' sites suitable for development, solar represents an untapped source of local jobs and new economic development opportunities within our communities.
4. Distributed solar generation can also provide additional benefits to the utility grid, as was noted in the public comments of Utah Clean Energy in their comments on the Three-year Program Review:

A number of comprehensive studies show that distributed solar-generated electricity provides a number of benefits to the system that are not likely quantified in avoided costs. These studies demonstrate that the value of distributed solar may include the following benefits: elimination of line losses, distribution system upgrade deferral, grid stabilization benefits, avoided emissions, protection against fuel cost volatility and economic risks associated with future environmental regulations, energy security, and environmental and public health benefits. A thorough quantitative analysis on these benefits has not been conducted for Utah or the Company; however, arguably, the findings from other studies could be applicable for other utilities and states.<sup>4</sup>

We concur with Utah Clean Energy's assessment on this matter. In addition, as we've noted in our prior comments, an analysis conducted by Sandia National Laboratories in conjunction with Rocky Mountain Power, Salt Lake City, and Utah Clean Energy, as part of the US DOE Solar America Cities Technical Assistance efforts, examined the potential to defer costly upgrades to substations with the application of relatively high penetrations of distributed solar PV at targeted locations across the Salt Lake Valley. The findings of the study show that 10% and 20% PV penetration on residential and commercial substations provides opportunities for deferral of transformer/station replacement or upgrade, depending on the location and the situation.<sup>5</sup>

5. Solar can help reduce consumer demand during the higher load and higher energy cost hours of the summer, as was noted by Rocky Mountain Power in their 2010 Annual Report on the Pilot Solar Incentive Program: "solar resources, while not coincident with system peaks do contribute a percentage of energy during the higher load and energy cost hours of summer days."<sup>6</sup> Arguably, greater penetrations of distributed solar would provide expanded benefits for more consumers. Commercial customers (including government facilities) that operate business during the day are well-suited for solar PV, which can generate power during the customer's daytime peak and help reduce customer demand on the system.

In light of the unique benefits that larger commercial solar energy systems can provide on the grid, we'd recommend that an expanded solar program offer adequate incentives for larger systems. Salt Lake County and Salt Lake City both have plans to implement large-scale solar installations on existing and future facilities, such as the Salt Palace Convention Center and the upcoming Salt Lake City's Public Safety Building. We consider solar to be an integral component of government facility and property planning, especially given the price stability and energy security benefits distributed solar can provide. As such, we strongly encourage the Commission and Rocky Mountain Power to expand the solar incentive program and structure the incentive to accommodate larger solar projects. We would be supportive of a modified incentive structure that provides an incentive based on the output of the system, taken over an established amount of time. This would help guarantee operation and maintenance and quality assurance over the life of the system for the end-user and the utility. We defer to the solar industry and other utilities that have offered this type of incentive to provide the details on how this could be structured cost-effectively in Utah.

In summary, we believe there are numerous benefits that an expanded solar incentive program can offer to the utility, ratepayers, the grid, and the general public; we further believe these benefits can be derived in a cost-effective and efficient manner. As such, we recommend that the solar incentive program be expanded to facilitate greater penetrations of solar PV, thereby maximizing the affiliated benefits of this abundant and untapped energy resource. We appreciate the chance to provide comments on this important matter, and we look forward to continuing to work with all involved stakeholders on the next steps.

Sincerely,

Peter M. Corroon  
Mayor, Salt Lake County

A handwritten signature in blue ink, appearing to read "Ralph Becker".

Ralph Becker  
Mayor, Salt Lake City

<sup>1</sup> PacifiCorp – 2011 Integrated Resource Plan. Chapter 8 – Modeling Results, Renewable Resource Cases, page 243-4.

<sup>2</sup> Docket 09-035-27 – In the Matter of Proposed Revisions to the Utah Demand Side Resource Program Performance Standards. Page 15.  
URL:<http://www.psc.utah.gov/utilities/electric/elecindx/documents/638480903527o.pdf>

<sup>3</sup> Protecting the Lifeline of the West: How Climate and Clean Energy Policies can Safeguard Water. Western Resource Advocates and Environmental Defense Fund. Executive Summary. Page 3-4. URL:<http://www.westernresourceadvocates.org/water/lifeline/lifelineES.pdf>

<sup>4</sup> Utah Clean Energy Comments, November 30, 2010. Page 13-14. Docket 07-03-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, Request for Comments.

<sup>5</sup> Exploration of PV and Energy Storage for Substation Upgrade Deferral in SLC, Utah. Second Progress Report for Rocky Mountain Power, Salt Lake City, and Utah Clean Energy. Sandia National Laboratories. Abraham Ellis, Mark Ralph, Garth Corey, Dan Borneo. October 4, 2010. Available upon request.