To: Utah Public Service Commission

From: Vote Solar Initiative

Date: June 9, 2011

Re: 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 and Commission Staff,

Pursuant to Docket 07-035-T14, the Vote Solar Initiative respectfully submits comments regarding continuation and expansion of Rocky Mountain Power's pilot solar incentive program.

The Vote Solar Initiative (Vote Solar) is a non-profit organization that works at the local, state, and federal level to implement programs and policies that spur growth in solar markets. Founded in 2002, with over 60,000 members nationwide, Vote Solar works to build the economies of scale necessary to bring solar into the mainstream. Having participated in rulemakings for a number of solar incentive programs, we focus our comments on general design principles that have been successfully implemented elsewhere and we look forward to participating in the incentive design and implementation phase, should the pilot be continued and expanded.

In general, Vote Solar recommends that the pilot solar incentive program be transitioned into a more robust offering that makes efficient use of ratepayer funds while leveraging significant private investment. Expanding the program will ensure Utah accrues a host of real and quantifiable environmental, health and economic benefits. In particular, stimulating demand for DG solar means new jobs and additional taxable revenues for the state, which can be a bright spot in an otherwise difficult economy. Solar PV creates more jobs per Megawatt of installed capacity, per unit of delivered energy, and per dollar of investment than the fossil-fuel based energy sector[1]. Growing this market will mean jobs for electricians, builders, contractors, engineers, technicians and salespeople. Investment in DG solar is a direct investment in local jobs suitable for a range of education levels and salary requirements.

[1] Kammen, D. *Putting Renewables to Work: How Many Jobs Can the Clean Energy Industry Generate?* The Renewable and Appropriate Energy Lab at UC Berkeley, 2004.

Solar Incentive Program Continuation

Vote Solar recommends that Rocky Mountain Power continue providing solar incentives in order to grow the state's nascent solar market because it appears that it can be done so economically. According to the 2010 Annual Report, the results of the Utility Cost Test (UCT) cost/benefit ratio is close to 1: with costs totaling $326,906 and benefits estimated at $286,744 the ratio is 0.87. Under the "Costs" category, the incentive payments themselves represent only 68% of the total dollars spent, while administrative costs are 28% and meter costs are an additional 4%. Assuming administrative costs topped out at 15% (i.e. total program costs at $271,627), for instance, the cost/benefit ratio would be greater than 1.

At 15%, administrative costs would be more in-line with other more mature solar incentive programs: by way of example, Arizona Public Service's distributed energy incentive program has a total non-incentive cost (administration + implementation + marketing/outreach) of 14% and the California Solar Initiative has a 10% cap on administration while spending has been closer to 8%.

Recommendations on PV Incentive Program Structure

At this early stage, we offer some preliminary comments on solar incentive design:

Program size and duration: A program needs to be many Megawatts in scale and available for a set number of years (e.g. 5 to 10 years) in order build a sustainable solar market. A degree of programmatic certainty will allow the solar industry to plan for growth accordingly, and drive business development that will help the market professionalize and reduce costs. On the other hand, start-stop incentive programs that do not operate continuously will hamper growth of the market and prevent cost declines that come from a maturing solar market.

Incentive structure: Capacity-based incentives are important for stimulating residential demand where upfront cost remains the biggest barrier. However, a performance-based incentive (PBI) is generally a better mechanism for non-residential systems. From the utility perspective, tying the incentive stream to the system's electricial output helps ensure that ratepayer funds are being used efficiently. And since payments are made over a period of

years, rather than paid as a lump sum like rebates, utilities can spread program costs over time.

Vote Solar recommends that Rocky Mountain Power continue to offer the capacity-based $1.55/watt rebate to systems under 25 kW, while offering a financially equivalent performance-based incentive (PBI) to systems larger than 25 kW. The PBI should be approximately set to the discounted present value of the capacity-based incentive and the assumptions that feed into the PBI calculation (i.e. discount rate, capacity factor, payment term) should be set through a transparent, deliberative process.

PBIs can take a few forms: a) fixed rate, fixed duration, b) fixed rate, variable duration, c) variable rate, variable duration and d) variable rate, fixed duration[2]. The fixed rate, fixed duration form is the most common used by solar PBI programs today, and is probably the easiest to administer. The PBI payment term should be at least 5 years long and less than 20 years.

Administration: Vote Solar recommends that Rocky Mountain Power evaluate currently available software tools, rather than developing an in-house custom tool, in order to make the program easier to administer. We don't recommend one particular product over another, however we can point to the example of Powerclerk, which is a web-based software tool used by state agencies and utilities in a number of states including NY, MA, PA and CA. Along with program experience gained over time, software tools will help lower administrative costs.

Vote Solar appreciates the opportunity to submit these comments for your consideration.

Respectfully submitted on behalf of Vote Solar this 9th day of June, 2011.

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[2] TE Hoff. *Photovoltaic Design Incentive Handbook*. NREL/SR-640-40845. Dec 2006