PublicService Commission <psc@utah.gov>

Residential Solar Fee, Docket Number 13-035-184

1 message

David Hopkins <davidh261@comcast.net> Tue, Jul 29, 2014 at 3:57 PM
To: Public Service Commission <psc@utah.gov>
Cc: Ron Allen <rallen@utah.gov>, Rebeca Wilson <rlwilson@utah.gov>

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July 29, 2014

Utah Public Service Commission

Dear Utah Public Service Commission:

I am a long time resident of Utah (55+ years) and customer of Rocky Mountain Power. I am writing in opposition to the proposed monthly residential solar fee. The imposition of this fee will drastically reduce the deployment of solar and other renewables in Utah at a time when there are great opportunities to use these technologies to reduce the cost of generating and distributing electricity within Utah. These opportunities are just arising and can potentially reduce cost of electricity in Utah. On the other hand, if you choose to levy this fee the result will be higher rates and a missed opportunity to reduce electricity rates in Utah.

Rocky Mountain Power, in their request for this fee has failed to consider the benefits distributed solar has. As you are aware the Rocky Mountain Institute, the Interstate Renewable Energy Council, and Utah Clean Energy have recently evaluated the cost and benefits of distributed solar. It is my opinion, a broad evaluation of the costs and benefits of distributed solar will show the proposed fee is not required and may in fact impede innovative pathways that can reduce generation and distribution cost.

As an illustration of these opportunities I would like to discuss ways distributed solar can extend the life of transformers in the distribution system and as a means of generating power over underutilized distribution lines in rural Utah. During the summer when distribution and power transformers are being taxed and overloaded, their service life can be significantly reduced or directly damaged by the combined effects of high ambient temperatures and overloading (see attached paper, Distribution Transformer Thermal Behavior…R. Walling). The use of PV solar on homes can reduce transformer load during the same high demand periods when solar PV

performs well. A 25 KVA transformer typically supports 8-12 homes and single home with a 5 KW array could significantly reduce load losses and transformer hot spot temperatures resulting in a significant increase in service life.

In the case of power transformers in substations the deferred cost could be substantial (see The Value of Grid-Support Photovoltaics to Substation Transformers, T. Hoff). In this study they found that a 0.5 MW PV plant attached to a substation could result in a deferral value of $398,000.

Utah is in a unique position to significantly reduce energy cost by strategically placing PV in urban and rural areas. There are many areas of the state where the distribution systems are underutilized and have high transmission costs (e.g. ski resorts, resort communities, agricultural water distribution, and mining operations). In areas where transformer temperatures can be extreme in southern Utah or at high elevations the life of distribution system critical components can be extended and power can be generated with minimal investment in current infrastructure.

I have provided the example above as a way of illustrating how our electricity costs may be reduced. Under Utah law the Public Service Commission is required to consider costs and benefits of distributed solar. I hope you will use your leadership position as representatives of Utah rate payers to drive for innovative ways of incorporating new disruptive technologies to improve system reliability and electricity costs. As you do this, please encourage Rocky Mountain Power to seek out innovative ways of reducing their overall cost structure by employing renewables like Solar PV instead of increasing utility rates as a path to increasing profits. It will benefit us all.

Sincerely,

David Hopkins

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2 attachments

Distribution_Transformer_Thermal_Aging.pdf
282K

047_ValuePVTransformerSupport.pdf
86K