



October 5, 2020

Utah Public Service Commission

### Comments on the value of excess energy generated via net metering

My name is Colin Jack, I'm a licensed professional electrical engineer in Utah with over 30 years' experience in the power industry in 29 countries, and I'm currently the Chief Operating Officer and Chief Engineer for Dixie Power in Southern Utah.

In St George, Dixie Power is connecting 150 new homes every month, many coming from the state of California. They've provided us very tangible evidence of how state policies that do not take into account the physics of providing power can drive out industries and turn off the lights. I hope Utah never falls into such a trap. Small things like overstating the value of excess energy from rooftop solar panels is one of the decision points on the path to failure or continued success as a state.

There are several factors being discussed in calculating the value of excess energy, a couple of which are actually relevant:

1. **Cost of Energy:** I can buy firm, dispatchable energy at any time, night or day, for about 2 cents/kWh. As we learned from the rolling blackouts in California this summer, non-firm, non-dispatchable energy is worthless. To quote the Honorable Christie when testifying before the U.S. Senate Energy and Natural Resources Committee on 9-16-2020: "Blackouts are unacceptable. We don't accept blackouts in America. We want power 24/7/365 and anything less than that is not meeting the standard that we want."
2. **Line losses:** My system losses are around 4%, which costs me an additional 8/100 cent/kWh.
3. **Infrastructure Investment:** Since solar energy is absent during peak load hours, both evening peaks in the summer and morning peaks in the winter, excess energy from rooftop solar saves nothing in infrastructure, from the power plant, to the transmission line, to the wires that serve each house. This September 8th Stephen Berberich, CEO of the California ISO, concluded: "Solar has... no value in the ...peak hours."
4. **Financial risk:** California's dependence on non-firm, non-dispatchable, intermittent resources caused the energy market to spike to \$1600/MWh in August, which is over 50 times normal. THAT is financial risk.
5. **Carbon requirements:** Utah citizens have consistently chosen power resources that provide reliable and affordable electricity. Imposing a tax on ratepayers for carbon dioxide would make electricity costs increase, reliability decrease, and any net benefits would have little to no impact on national or global emissions.
6. **Integration costs:** As California has demonstrated, for every megawatt of intermittent resource imposed on the power system, an equal amount of megawatts needs to be added

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in reserve generation, which more than doubles the cost of the energy, making the value of the excess solar energy negative. This fact has been borne out by the negative energy prices in the western energy market during the hours of the infamous Duck Curve since 2016. Also, Stanford University calculations suggest that 2/3 of California rate increases since 2003 can be attributed to integration costs of roof-top solar.

7. **Climate and Health:** Excess energy from rooftop solar does nothing to reduce air pollution and improve our health. The COVID-19 pandemic, however, did wonders for the air quality in the Salt Lake Valley, and it had nothing to do with electricity.
8. **Jobs and Economy:** Rooftop panel installer jobs rely on government subsidies to operate. These workers tend to have jobs that are seasonal and migratory. Jobs provided by either investor-owned utilities, electric cooperatives, or municipal power systems however, are full-time permanent jobs that impact their communities. For instance, Utah's rural co-ops alone provide a vital support to both rural and urban areas. Between 2013 – 2017, co-ops spent \$1.2 Billion on capital investments, operations, and maintenance activities. They retired over \$7.5 Million in capital credits to their members; contributed \$914 Million to Utah's GDP; supported nearly 1,500 jobs; contributed over \$350 Million in labor income; and generated \$102 Million in federal taxes and \$138 Million in state/local taxes.

In summary: Solar technology is neither good nor bad; it's neutral – it just does what it does – and what it does is generate energy when most homes don't need it. Anytime the word "net" is used in relation to energy, it's referring to a paper transaction and not one of any real value from the standpoint of electricity. Until some future day when electricity storage technology has actually matured, the whole concept of "net energy" is only a rate-payer subsidy for the misapplication of technology where it doesn't actually work. Solar panels generate energy when the value is negative. THAT is the true value of Excess Energy from rooftop solar.

Sincerely,

A handwritten signature in black ink that reads 'Colin W. Jack'. The signature is written in a cursive style and is positioned above a horizontal line.

Colin W Jack, PE



PublicService Commission <psc@utah.gov>

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## Docket No. 17-035-61

1 message

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**Chantel Stucki** <chantel.stucki@gmail.com>

Thu, Oct 15, 2020 at 9:20 PM

To: psc@utah.gov

Public Service Commission,

I strongly urge you to reject Rocky Mountain Power's net metering change request. This will hurt consumers, businesses, the economy, and the environment. Please don't let them do this.

This isn't the right time to make a change. Wait at least a year or two to re-evaluate. This would be in direct opposition to Governor Herbert's plan for economic recovery.

This will never fly. People are only starting to care about the environment more and more. If you make this change, there will be growing opposition and it will have to be rolled back. Why waste all that time and hurt the economy?

You are here to protect the people from the monopoly. Please do your job.

Sincerely,

Chantel Stucki



PublicService Commission &lt;psc@utah.gov&gt;

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## Docket No. 17-035-61 Public Comment

1 message

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**MARK CHRISTENSEN (mpc1374@yahoo.com) Sent You a Personal Message**

Fri, Oct 16, 2020 at 9:00

&lt;automail@knowwho.com&gt;

AM

To: psc@utah.gov

Dear Utah Public Service Commission,

Solar needs to be supported and not killed of so RMP can continue to raise rates year after year while burning coal and making billions of dollars because they control the market. Tell Warren Buffet and his company that individual solar is important and they can't control the market place anymore. Not only should you not reduce the KW credits but if anything increase them to support those willing to provide clean energy at a controlled cost.

To change now would only harm those who have invested in a clean energy source and need to pay off their investment using the credits that were in place when they installed their system.

As a resident of Utah, I am urging you to reject Rocky Mountain Power's proposal to reduce the export credit rate of rooftop solar by up to 85%. The change in value for residential customers from 9.2¢/kWh to 1.5¢/kWh is not supported by sound science, as demonstrated by the vastly different valuations between the Rocky Mountain Power and Vote Solar studies. The rate change would result in drastic job losses for an entire industry, compounding the hardship of the current economic crisis in this state. Additionally, by allowing this change, the Public Service Commission would be condoning Rocky Mountain Power's monopolization of sun power, and cutting off Utahns' right to energy choice.

Our energy grid is rapidly evolving. The future of the grid must include a diversity of resources, including distributed generation which supports greater community resiliency. If the Public Service Commission allows Rocky Mountain Power to undervalue the contributions of rooftop solar, then it is essentially stifling millions of dollars of potential crowd-funded investment in our grid infrastructure. A decision to approve a 1.5¢/kWh rate is a decision to support corporate welfare over the future stability and sustainability of our energy grid.

I implore you to serve the best interest of the people of Utah over the shareholders of Rocky Mountain Power. Reinstate net-metering and afford the people of Utah our right to choose the clean, distributed energy choice we deserve.

Sincerely,

MARK CHRISTENSEN

1374 Pheasant Way

Park City, UT 84098

[mpc1374@yahoo.com](mailto:mpc1374@yahoo.com)

(435) 649-8139

This message was sent by KnowWho, as a service provider, on behalf of an individual associated with Sierra Club. If you need more information, please contact Lillian Miller at Sierra Club at [core.help@sierraclub.org](mailto:core.help@sierraclub.org) or (415) 977-5500.



PublicService Commission &lt;psc@utah.gov&gt;

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## Docket No. 17-035-61 Public Comment

1 message

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**Richard Spotts (raspotts2@gmail.com) Sent You a Personal Message**

Fri, Oct 16, 2020 at 10:33

&lt;automail@knowwho.com&gt;

AM

To: psc@utah.gov

Dear Utah Public Service Commission,

As a resident of Utah, I am urging you to reject Rocky Mountain Power's proposal to reduce the export credit rate of rooftop solar by up to 85%. The change in value for residential customers from 9.2¢/kWh to 1.5¢/kWh is not supported by sound science, as demonstrated by the vastly different valuations between the Rocky Mountain Power and Vote Solar studies. The rate change would result in drastic job losses for an entire industry, compounding the hardship of the current economic crisis in this state. Additionally, by allowing this change, the Public Service Commission would be condoning Rocky Mountain Power's monopolization of sun power, and cutting off Utahns' right to energy choice.

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I implore you to serve the best interest of the people of Utah over the shareholders of Rocky Mountain Power. Reinstate net-metering and afford the people of Utah our right to choose the clean, distributed energy choice we deserve.

Sincerely,

Richard Spotts  
255 N 2790 E  
Saint George, UT 84790  
[raspotts2@gmail.com](mailto:raspotts2@gmail.com)  
(435) 669-0206

This message was sent by KnowWho, as a service provider, on behalf of an individual associated with Sierra Club. If you need more information, please contact Lillian Miller at Sierra Club at [core.help@sierraclub.org](mailto:core.help@sierraclub.org) or (415) 977-5500.



PublicService Commission <psc@utah.gov>

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## Docket No.17-035-61

1 message

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**Yukio Kachi** <y.kachi@utah.edu>

Fri, Oct 16, 2020 at 2:23 PM

To: "PSC@utah.gov" <PSC@utah.gov>

Cc: Fernando Huerta <fernando.huerta@cesolar.com>, Teddi Kachi <teddikachi1@gmail.com>, Miyo Kachi <mkachi@gmail.com>, Aki Kachi <akikachi@gmail.com>, Alison Richman <alisonrichman@me.com>, Fred Swanson <fbswan32@msn.com>

The export credit rate must not be decreased. If anything, it should be increased, for the following reasons:

1. The carbon foot print should be made lighter, and the increase of the credit rate is one good way. Global warming is a serious threat to the wellbeing of people everywhere.
2. The air pollution must be decreased, and the increase of the export credit rate is one good way. The Salt Lake City area, which includes Ogden, Bountiful, Salt Lake City, and Orem, steadily ranks high in the low air quality index among the metropolitan areas in the world.

Typically, it is one of the worst five to twenty areas in the world, and often is the second worst in the US, after the Los Angeles area. I have asthma, and poor-air-quality days force me to stay indoors, which does not eliminate my breathing trouble. The illness and death caused by polluted air in the Wasatch Front must be extremely costly.

3. The rooftop solar industry in the Wasatch Front should thrive. It's an economic engine which must not be destroyed by the drastic reduction of the export credit rate.
4. Rooftop solar panels increase the real estate value, which in turn increases the property tax rate, which in turn increases the property tax revenue of local governments.

I should appreciate it very much if the Commission take these reasons into consideration in determining the export credit rate for solar panel generated electricity.

Sincerely, Yukio Kachi



PublicService Commission &lt;psc@utah.gov&gt;

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**Docket No. 17-035-61.**

1 message

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**Christopher Kauffman** <christopherkauffman@yahoo.com>  
Reply-To: Christopher Kauffman <christopherkauffman@yahoo.com>  
To: "psc@utah.gov" <psc@utah.gov>

Fri, Oct 16, 2020 at 10:17 PM

I am against reducing the rate that solar power is paid to individual producers. I invested in solar panels and it took several years to re-pay the initial cost. Reducing rates will disincentivise more investment in solar. Much of the state of Utah suffers from polluted air and solar power can help. Clean energy should be supported not suppressed. Don't lower the rates!

I will also be advocating for keeping market rates for solar power by contacting my elected representatives.

Christopher Kauffman  
Manzana Springs Vegetable Farm  
[1851 Spanish Valley Dr.](#)  
[Moab, Utah 84532](#)  
cell 435-260-8775