

public comment on RMP request to raise the cost of rooftop solar

1 message

UVEF Chair <Chair@uvef.org> To: psc@utah.gov Fri, Dec 2, 2016 at 8:14 PM

To the PSC:

It may be late but here is additional input on the advisability of granting Rocky Mountain Power the ability to make rooftop solar more expensive for homeowners. The SL Tribune published my letter to the editor a day or so ago. Here is my letter:

Rocky Mountain Power has it backwards

Rooftop solar users — deriving power from clean, safe, renewable energy — help the common good by reducing harmful air pollution. That reduction has many beneficial effects. Cleaner air makes our our lives healthier, reduces medical costs, reduces lost work time and helps us better enjoy Utah's scenic beauty — thereby supporting our vital tourism/outdoor recreation economy. Cleaner air means less planet-damaging greenhouse gas emissions. Less consumption of utility-generated energy places less wear and tear on the grid and utility infrastructure, and reduces the need for expensive new power plants.

Rocky Mountain Power's efforts to raise the cost of rooftop solar by charging extra fees, etc. — not paid by nonsolar users — may have a crippling effect on the burgeoning rooftop solar industry and the new jobs that go with it.

The share of a utility's operating costs borne by consumers should be proportional to the net amount of utilitygenerated energy consumed. Big consumers should pay more for utility use and small users much less. The same rationale applies to highway usage. The more one uses the roads (by fuel purchased, miles traveled and commercial truck weight) the more one pays for road construction and maintenance. People are not charged extra because they don't drive much. That's fair. Charging small users extra is not.

Practices that help our health, the common good and the good of the planet should be encouraged and incentivized, not penalized. RMP has it backwards.

James Westwater Chair, Utah Valley Earth Forum Spanish Fork

http://www.sltrib.com/opinion/4630790-155/letter-rocky-mountain-power-has-it

Kindly,

James Westwater



James Westwater, PhD, Chair UTAH VALLEY EARTH FORUM Utah Valley's Citizen Environmental Organization "Stewardship for a healthy environment"



RMP Solar rate proposal

1 message

Kd7und <kd7und@yahoo.com> To: psc@utah.gov Sat, Dec 3, 2016 at 11:10 AM

Dear PSC members,

I am writing to you regarding the Rocky Mountain Power proposal to raise rates on grid-tied solar customers.

If I am reading the RMP proposal correctly, RMP wants to raise rates on solar customers because they aren't buying as much electricity as other (non-solar) customers.

What if the water companies did this?

Should I have to pay more per gallon because I chose to "Slow the Flow"?

What if I decide to eliminate every electrical appliance and light fixture in my home except for my phone charger? My bill would drop to a couple bucks a month. Would I then be getting a "subsidy" too?

The RMP argument is ridiculous. This thought process ends with every customer paying the same amount regardless of usage.

Rocky Mountain power says that solar customers are getting a subsidy (paid for by non-Solar customers). If that is the case, and this rate approval goes forward, will non-solar customers see a rate reduction as they will no longer be paying the subsidy?

Thank you for your thoughtful consideration on this important topic.

Sincerely,

Scott McIntyre 14 East 959 South Layton, UT 84041 801-721-7953



Proposed rate change for rooftop solar customers

1 message

Jake Owsley <jakeowsley@outlook.com> To: psc@utah.gov

Sat, Dec 3, 2016 at 1:48 PM

"Dear Public Service Commission, I'm writing to implore you to please vote "NO" on Rocky Mountain Power's proposed rate change for grid-tied solar users!

Why? Because their "study" is slanted and inaccurate. The imagined subsidy that they say non-solar customers are paying is non-existent. It's analogous to saying people who use less water, or less gas are being subsidized because they pay less taxes for gas or water. Saying these lower users should pay more doesn't make any sense at all and it's the same with electricity. The study also completely ignores the benefits of distributed generation. Distributed generation stabilizes the grid and lowers voltage drop. Solar also adds the most to the system exactly when demand is the greatest. The greater the presence of this distributed generation, the greater the benefit. In other words, we should be doing all we can to promote rooftop solar.

Next, the proposal completely ignores the great benefit solar users GIVE to the community- lower emissions. More and more urban users are pairing a new rooftop PV system with an electric car. These folks are saving the health of all of us and should be recognized as visionaries and our benefactors. And again, the greater the proliferation of this practice, the greater the benefit. Promote rooftop solar!

Lower emissions lead to cleaner air. Cleaner air leads to less pollution related illness and death-lower medical expenses.

If the system were really fair, a carbon tax would show the true cost of polluting our planet and the benefit of all renewable energy practices.

If you are being swayed or in any way influenced by lobbyists representing RMP or anyone from the Oil and Gas industry, please turn away, do what is right, choose to vote with what is good for our community, our environment, our future. Ignore this fake study saying rooftop solar is being subsidized. The opposite is true."

Thank you for taking the time to read my email.

A concerned citizen, Jake Owsley 801-694-4175



Re: Public comment on RMP increase for solar users

1 message

James Brown <james@hmpg.net>

Sat, Dec 3, 2016 at 2:05 PM

To: PublicService Commission <psc@utah.gov>

Attached are my comments regarding dockets 14-035-114 and 16-035-T14; Rocky Mountain Power's request for a tariff change for rooftop solar. Please enter these comments into the public record for the PSC.

Thanks,

- James

On Fri, Dec 2, 2016, at 07:39 AM, PublicService Commission wrote:

You may comment via email to psc@utah.gov or by regular mail. Our mailing address is: Public Service Commission of Utah Heber M. Wells Building 160 East 300 South, 4th Floor Salt Lake City, UT 84111

Please refer to Docket No. 14-035-114 or Docket No. 16-035-T14 on our website to find further information regarding these matters: http://psc.utah.gov/utilities/electric/elecindx/2014/14035114indx.html http://psc.utah.gov/utilities/electric/elecindx/2016/16035t14indx.html

On Thu, Dec 1, 2016 at 9:56 AM, James Brown <james@hmpg.net> wrote: https://www.rockymountainpower.net/about/nr/nr2016/proposed-net-metering-changes.html

In this article Rocky Mountain Power says they are applying for a change in the rates charged to rooftop solar customers. I'd like to comment to the PSC on this matter. How do I go about that?

I looked at the calendar on your website and I don't see anything that looks like it would be this item on your agenda. Can you point me at the correct docket and let me know when this will be considered?

Thanks,

- James

RMP PSC comment.pdf 129K

James Brown 255 W 2000 S Orem, UT 84058

December 2, 2016

Re: Dockets 14-035-114 & 16-035-T14; Rocky Mountain Power's request to change tariffs for rooftop solar customers

To the Public Services Commission,

I am writing to request that Rocky Mountain Power's (RMP) rate request under Dockets 14-035-114 & 16-035-T14 be denied in its totality.

If the PSC feels that RMP's rooftop solar customers are not paying their fair share, I strongly encourage the PSC to conduct an independent study. Regardless of their intentions, RMP is clearly biased in this matter since they are, themselves, a solar provider. That bias, I believe, has leaked over into their report.

I was alerted to RMP's tariff request after finding an article on the RMP website (see

<u>https://www.rockymountainpower.net/about/nr/nr2016/proposed-net-metering-changes.html</u>). This article has several glaring logical and financial errors. I hope that pointing out these errors is sufficient to make it clear to the PSC that RMP is not acting in the best interest of their own customers nor Utah's citizens in general. Instead, it seems clear to me that RMP is punishing rooftop solar customers in order to protect their own profits and to ensconce themselves as a solar power monopoly.

RMP proposes to turn residential solar customers into commercial customers by moving them to a tiered rate structure. This seems designed to punish solar producers, particularly those who make less than 100% of their own power. Rather than reward customers who are helping RMP during peak demand periods, they seem intent on punishing the very people who are helping RMP balance the load. This seems illogical on the face of it. Solar produces power at the exact time when RMP needs extra capacity. Further, this generation is near the consumption point so it is the most efficient power RMP can buy or produce because it has to travel the shortest distance.

Next RMP asserts that rooftop solar customers are underpaying the actual cost of service by \$400 per year. On the face of it this seems absurd. RMP is insisting that just to have a connection to the power grid is well over \$400 per year in ongoing costs. I certainly don't feel I receive \$400 worth of value from RMP, on top of the actual energy they provide. Further, that would suggest that only 2/3 of my normal energy bill from RMP (I pay approximately \$100 per month) actually goes to energy and the other 1/3 goes to overhead (maintenance, administrative, etc.).

Comparing this to other electrical companies in the mount west reveals that a charge of \$400 per year would be several times more than other companies charge. For example, the city of Longmont, CO says:

A \$10.40 standard monthly service charge also appears on customer utility bills to cover the cost of distribution power lines, transformer expense, substation expense, meter overhead and maintenance, meter reading, billing and customer service. These represent the fixed costs to provide service to each customer regardless of usage amounts.

Source; <u>http://www.longmontcolorado.gov/departments/departments-e-m/longmont-power-</u> communications/electric-service/rates-and-fees/residential-rates

This would amount to a total of \$125 per year. That's a far cry from the \$400 per year that RMP suggests that rooftop solar customers are underpaying. Keep in mind that this \$400 is <u>in addition</u> to the \$6 per month that RMP already charges residential customers to cover "*a portion of the fixed costs associated with having single phase electric service, including the cost of meters and meter reading, preparing and providing a bill, and other administrative costs"* (quoted from RMP's own description of their 'Basic Charge' on their website). Is RMP so inefficient that they have nearly <u>four times</u> as much overhead expense as a little town in Colorado? I thought there were supposed to be "economies of scale" with large power companies. If so, RMP should be significantly cheaper, not four times more expensive.

Further, this assertion, that solar rooftop customers are not paying their share, would suggest that as customers conserve energy (by, for example, installing LED lighting, increasing window R values, using automatic lights, etc.) they too, would not be paying their share. That calls into question RMP's various programs designed to do exactly this, to reduce the amount of power individual home owners consume.

RMP claims, later in the article, that they can purchase electricity from large solar farms for 3 to 4 cents per kWh. Let me explain how this is in direct conflict with their other statements.

If RMP is buying power at 3 to 4 cents per kWh and selling it to me at 9 cents (that's the lowest cost shown on my summer bills), then their overhead number of \$400 is way out of line. Using these numbers the cost of electricity is 1/3 of the bill and overhead is 2/3 of the bill. This is the exact opposite of the numbers we calculated above. Both calculations can't be correct.

Next, if the overhead RMP says I need to pay as a residential customer is over \$400 per year, what is the overhead for a large solar farm located in a remote area of Utah? That can't have been inexpensive to build initially (initial capital investment of roughly \$400 million). Further, the infrastructure to get power from that plant onto the grid should be allocated 100% to that plant since it exists exclusively to connect that plant and isn't shared with anyone else.

By contrast, the capital cost to RMP to build a residential rooftop solar generation is exactly \$0 since it is borne entirely by the home owner. Likewise the incremental infrastructure cost for RMP to acquire that power is also \$0 since the home is already connected to the grid. Lastly the ongoing infrastructure cost is shared by everyone in the neighborhood since the infrastructure exclusively dedicated to each individual home is just a few dozen feet of power cable. All of the other components (transformers, power poles, etc.) are all shared by neighbors.

RMP's claim that they can purchase electricity from solar farms for 3 to 4 cents per kWh doesn't match up with their own announcements about their solar plant. On Feb 15,2016 RMP announced that they were building a 20 megawatt solar farm near Holden, Utah. In that announcement they say:

Residential customers will receive a "locked-in" generation rate of 7.7 cents per kilowatt-hour, plus about 4 cents for transmission and distribution, totaling 11.7 cents per kilowatt-hour. Source: https://www.rockymountainpower.net/about/nr/nr2016/subscriber-solar-location.html

Clearly their cost for solar power is higher than the stated 3 to 4 cents because just the transmission and distribution cost is 4 cents according to RMP's statement. That would be on top of the actual cost of generation, maintenance, administration, etc.

The net metering program offers RMP a less expensive alternative to provide solar power to neighborhoods. With net metering, RMP is only paying 9 cents (what they are crediting rooftop solar customers for excess power generated) while claiming that their cost is 11.7 cents from their own power plant.

Lastly RMP says in their article that "*net metered customers still rely on the grid 23.99 hours of each day.*" This is utter nonsense and completely irrelevant to the discussion. I believe everyone relies on the grid 24 hours per day. I don't know of anyone who has zero electrical usage in their home or business at any point during the day. We all have nightlights, refrigerators, televisions, computers, rechargeable devices, thermostats, security lights, smoke detectors, etc. that are constantly consuming power. Even ignoring that, I don't think anyone wants to turn on a light switch at any time during the day and not have power so everyone 'relies on the grid' 24 hours per day.

The inference, however, is that somehow rooftop solar customers put more load on the grid than non solar users. This, too, is nonsensical. Solar generation, obviously, only happens during daylight hours, not 23.99 hours per day. At times other than when power is being generated, solar customers put the same load on the grid as they did before they installed solar. Further, the wires don't know or care which way electricity is flowing. The amount of power in the system is fixed at any given time, whether it comes from RMP or from rooftop solar doesn't cause any more or less strain on the infrastructure.

Lastly, RMP says they will change rates only for new net metering customers. How long will it be before they or others raise the argument that having two different rate plans based solely on when you signed up is unfair? This will severely disadvantage those who purchased solar based on a cost/benefit analysis using the current pricing structure.

In summary, the benefits of neighborhood rooftop solar to RMP far exceed anything RMP can possibly do on their own. RMP should be rewarding rooftop solar customers, not trying to apply punitive pricing models to discourage solar and protect their monolopy. Some of the benefits to RMP and the community are:

- Reduced dependence on non-renewable energy sources
- No capital cost to RMP to expand their generation capacity
- No additional administrative, infrastructure, or maintenance cost to RMP
- Peak generation capacity exactly mirrors peak demand
- Zero emission power generation
- Encourages users to invest in alternative fuel vehicles

Again, I urge the PSC to deny RMP's request entirely. Further, I encourage the PSC to conduct an independent study of the costs and benefits of rooftop solar to RMP and Utah in general.

Sincerely,

James H Bown

James Brown



Report: 'Load Defection' from Customer-Owned Solar and Batteries is Already Here

1 message

Matthew Jenkins <matthew@legendsolar.com> To: psc@utah.gov Sat, Dec 3, 2016 at 2:39 PM

Please take time to read this very informative article before making decisions on Rocky Mountain power's proposed changes to their net energy metering program. It gives a great perspective on what the future holds for utility companies and customers and business's adoption of distributed energy technologies, such as solar.

Report: 'Load Defection' from Customer-Owned Solar and Batteries is Already Here

http://www.the energy collective.com/jeffstjohn/2214621/report-load-defection-customer-owned-solar-and-batteries-already-here



docket 14-035-114 16-035-T14

1 message

Chris Barker <ctbarker@gmail.com> To: psc@utah.gov

Sat, Dec 3, 2016 at 7:10 PM

I would like to voice my objection to the solar rate structure proposed by Rocky Mountain.

Solar is the future of electric generation, and it will eventually completely change the RM's model.

I just re-read the SL tribune November 21, 2015 Op-Ed and it is very well said. Please read it

I am an existing Solar user who put enough solar on my roof to cover only 60% of my bill - I'm still paying quite a bit to rocky mountain for the service they deliver to my home.

I'm paying about \$100 more with solar up, than I was before.

Some of my thoughts.

- According to many prognosticators, Solar will become the cheapest energy around, and it threatens Rocky Mountain they have a vested interest in squashing competition.
- Cool Keeper
 - Allegedly, the Cool Keeper program is designed to keep the energy grid from being over-taxed during peak time
 - If that is the case Solar on homes, which is generating some of its highest levels of the day, at the hottest times of the day is doing way more to un-tax the grid than the cool keeper program is.
 - The Op-ed says this part particularly well.
 - Solar net-metering customers push their extra clean energy onto the grid during peak hours when the air conditioning is turned up, businesses are open, and demand is high. Rocky Mountain Power can then charge the neighbors of that customer market rate for consuming this cleaner power — all without having to invest in infrastructure to generate that energy themselves or pay the cost to move it across half the state from one of the distant generation sites. This local generation has a real value: it can reduce the amount of money Rocky Mountain Power needs to raise in customer rates for energy generation. In fact, during the PSC proceeding, clean energy advocates submitted detailed expert testimony demonstrating that rooftop solar is by far the cheapest resource available on Rocky Mountain Power's system."
- Not every Solar is equal.
 - For years, RM has sent me letters telling me I'm using a lot of electricity (which I do, but I'm not wasting electricity)
 - That was part of my incentive to get solar because RM encouraged me to do my part by reducing - but I've already done all the efficiency things (I have two kitchens, two washing machines, two freezers, many more occupants than 'my neighbors' RM compared me to....)
 - My solar array is designed to handle 60% of my load (with 30 panels up)
 - This takes me out of the highest rate tier, but I still use a lot of electricity.
 - To increase my rate on the remaining 40% is only self serving and does not address any real need.
 I'll end up paying far more than my fair share.
 - I'm semi OK with paying the 'fee' that they have proposed, but the rate increase just because a
 person has a Net Meter, doesn't take into account how much electricity they are actually still using.

The vast majority of Utahan's do not want you to grant this increase, please consider what is best for the people of utah & even the air we all breathe, not for Rocky Mountain.

Chris Barker South Jordan 801.254.8902



Sat, Dec 3, 2016 at 8:45 PM

RMP fees to solar homeowners

1 message

Don Brown <donrbrown@gmail.com> To: psc@utah.gov Cc: John Whittaker <jdwhitta@gmail.com>

To Whom it May Concern,

I oppose any effort by RMP to thwart solar adoption. This move to add fees to solar homeowners is like buggy whip makers asking for a tax on motor vehicles. RMP is trying to stop progress and should not be allowed to. Please reject their attempts to hold back innovation. Better let them increase rates on their current customers which will accelerate defection towards solar adoption. It's not the Government's job to keep RMP in business.

Sincerely,

Don Brown SLC Homeowner of a non solar residence

Sent from my iPhone



Please help us save solar

1 message

Boyd Campbell <campbellfamily33@q.com> To: "psc@utah.gov" <psc@utah.gov> Sun, Dec 4, 2016 at 12:10 AM

It should be our choice if we want to be more self reliant and use less of the municipal/monopolistic services. Please don't allow our utility company to keep us handcuffed to their services and help us become more self reliant and self sustaining by not allowing Rocky Mountain Power to descriminate and charge the ones of us that choose to rely less on them.

Thanks, Boyd Campbell

Sent from my 4G LTE device



Rocky Mountain Solar Proposal

1 message

Rick Freeman <rickjfree@hotmail.com> To: "psc@utah.gov" <psc@utah.gov>, "ocs@utah.gov" <ocs@utah.gov> Sun, Dec 4, 2016 at 1:29 AM

To whom this concerns;

Amazing you are stupid enough to even consider the Rocky Mountain Power proposal and their attempt to kill progress (solar) given the recent national events. Old money vs new money.

Did you just see the last presidential election? Anti-establishment on the left (Sanders) that got cheated by the DNC in favor of the bankster's lap dog Hillary. Anti-establishment on the right (Trump) wins in spite of inflammatory rhetoric vs the establishment's lap dog. The pitch forks and torches are out and you might want to pay attention - if not for doing the right thing by opposing RMP (which is almost never a motivation for those in power), then for your own self-preservation of power (the usual motivation).

The people have spoken. We are against any more of the establishment and old money.

Think.

If by chance you CAN muster the strength, do the right thing and refuse the bogus proposal. I could site you multiple economics reasons why you should, but you already know them. That isn't the issue. You know it, I know it and most people know it. It is only up to you to do it.

Regards,

Rick Freeman



19,011 signers: Save Solar for Utah - Affordable Solar Power in Jeopardy in Utah petition

1 message

Ryan Evans <petitions@moveon.org> To: Public Service Commission <psc@utah.gov> Sun, Dec 4, 2016 at 2:18 AM

Dear Public Service Commission,

I started a petition to you titled *Save Solar for Utah - Affordable Solar Power in Jeopardy in Utah*. So far, the petition has 19,011 total signers.

You can post a response for us to pass along to all petition signers by clicking here: http://petitions.moveon.org/ target_talkback.html?tt=tt-115677-custom-75514-20261204-D29HT

The petition states:

"Stop Rocky Mountain Power from Killing Residential Solar in Utah Over the last year, Rocky Mountain Power's sister company killed 99% of residential solar in Nevada. Now, Rocky Mountain Power is trying to do the same thing in Utah, by asking the Utah Public Service Commission to approve one of the most aggressive, anti-consumer, anti-competitive, and anti-solar proposals ever brought forth by a utility in the United States. The Commission is required to study the costs and benefits of residential solar in Utah. Most states have found that residential solar provides a net benefit to everyone, not just solar customers. Rocky Mountain Power ignores the full benefits and demonstrated cost-savings that they and all Utahns receive from residential solar. Utah deserves an open and transparent cost-benefit study. We call on Governor Herbert, the Utah Legislature, the Utah Public Service Commission, the Utah Division of Public Utilities, and the Utah Office of Consumer Services to reject Rocky Mountain Power's proposal. We ask the Commission to conduct a robust and fair cost-benefit study so that Utah homeowners can continue to invest in solar and energy independence."

To download a PDF file of all your constituents who have signed the petition, including their addresses, click this link: http://petitions.moveon.org/deliver_pdf.html?job_id=1906992&target_type=custom&target_id=75514

To download a CSV file of all of your constituents who have signed the petition, including their addresses, click this link: http://petitions.moveon.org/deliver_pdf.html?job_id=1906992&target_type=custom&target_id=75514&csv=1

Thank you.

-Ryan Evans

If you have any other questions, please email petitions@moveon.org.

The links to download the petition as a PDF and to respond to all of your constituents will remain available for the next 14 days.

This email was sent through MoveOn's petition website, a free service that allows anyone to set up their own online petition and share it with friends. MoveOn does not endorse the contents of petitions posted on our public petition website. If you don't want to receive further emails updating you on how many people have signed this petition, click here: http://petitions.moveon.org/delivery_unsub.html?e=Ly_sxWisHzEtWsNiXJK703BzY0B1dGFoLmdvdg--&petition_id=115677.



Docket Number: 14-035-114

1 message

Tyler Hoar <tyhlar@yahoo.com> Reply-To: Tyler Hoar <tyhlar@yahoo.com> To: "psc@utah.gov" <psc@utah.gov> Sun, Dec 4, 2016 at 7:00 AM

The proposal by Rocky Mountain power puts a lot of weight on the non-recurring costs associated with managing the net metering application process. The proposed application fee increase does not come close to covering the costs they claimed in the proposal. The bulk of the cost recovery will come from the monthly rate increase and the additional fees applied to the household peak power usage during the month. For a non-recurring cost, it makes more sense to request a higher initial setup fee for the net meter rather than charging the customer monthly even after the costs are recouped. Given the high initial installation costs of a rooftop solar energy system, a higher one-time fee could be rolled into that initial cost with less impact to the customer.

I think it is important, however, that Rocky Mountain Power addresses inefficiencies in the net metering application process instead of blanketly asking the customer to cover all the costs. It isn't evident from their proposal that they have made an effort to improve their processes.

Additionally, the peak power usage fee doesn't line up with the rest of their residential rate structure. All residential customers are responsible for the peak power demand. If peak power usage is a concern, Rocky Mountain Power should be asking to apply a similar rate structure to all residential customers and encourage adoption of in-home energy storage to help ease the peak power demand on the grid.

Furthermore, Rocky Mountain power does not provide detailed power usage data to customers. Their website only provides the total monthly usage. An educated decision on whether or not to install a rooftop solar energy system cannot be made without that information. This shortcoming needs to be addressed.

Generally, I think the concept of charging a customer based on the highest power usage during a 1-hour window is a bit nonsensical. A household attempting to reduce their electric bill by leaving all the lights off, turning off the A/C and not using the oven during the peak demand hours could be charged the same penalty as the household making no effort to save energy. All it takes is a teenager home alone one evening during a summer month. He invites some friends over and they decide it is too hot in the house and they are hungry for some pizza rolls.

I encourage the current proposal to be rejected.

Thank you, Tyler Hoar



Home Solar

1 message

Ole Holsti, Ph.D. <holsti@duke.edu> To: "psc@utah.gov" <psc@utah.gov> Sun, Dec 4, 2016 at 9:28 AM

I purchased a home solar system about a year ago. It was quite expensive and I am not likely to live long enough [I am 83] to see it pay off financially. But it contributes to clean air, something we need in SLC, and thus it is worth it to me. We do NOT need RMP to render home solar even more expensive. If anything, they should cut the monthly charges.

Many thanks for your attention.

Ole R. Holsti, 1878 E Harvard Avenue, SLC, UT 84108-1805



Docket 14-035-114 16-035-T14

1 message

Victor Pezzolla Sr <vhpezzolla@gmail.com> To: psc@utah.gov Sun, Dec 4, 2016 at 10:24 AM

Dear Commissioners,

I've read over a few emails that support the RMP solar rate increase and believe their premise that solar customers greatly benefit over non-solar customers is incorrect. The decision to purchase solar is a large financial long-term investment in their property (10k-20k) with no guaranties for savings or even break-even. As with all investments, it could incur unexpected costs and needs to be managed. I believe the majority of the people that make this investment in solar want to do their part to help with the pollution issue. This same mentality supports other ways to clean the air (transit, EV cars, walking trails etc...) and other healthy alternatives. The proposed RMP rate increase will kill the solar market here just like its sister company (NV Energy) did in Nevada last year when its new solar installs dropped by 99% (pulled from desert news article published 11/17/16). I understand RMP's responsibility to its stockholders in wanting to stop alternate energy sources but the stockholders good doesn't always represent the public good. The decision to purchase solar and invest long-term in our valley is a significant one. When the winds stops or we have an inversion, everyone dislikes the pollution and wants to get away. I strongly request you send a clear message that clean solar power is welcome in the valley so we can retain people willing to make long-term investments in the valley's future and stay here to support an agenda toward cleaner and healthier alternatives for the public good.

Thank you, Vic Pezzolla Sr Herriman, Utah



Solar Power and Net-metering

1 message

Mike Norseth <mcnorseth@gmail.com> To: psc@utah.gov Sun, Dec 4, 2016 at 12:35 PM

Dear Commissioners,

The effort of Pacific Corp to raise the rates on new solar power customers seems misguided and inappropriate. I've read the Pacific Corp propaganda and find it completely misleading. They are claiming two things that in my opinion are false.

The first is that solar power customers that utilize net-metering are being subsidized. That is entirely false as can be attested by my power bill. If my solar panels generate more power than is needed the excess power is provided to the grid for others to use and I get one-for-one cost credit. When less power is generated than required the cost for power that I use is the same as any customer would pay. There is absolutely no subsidy there. Additionally if I have a power credit on 1 March of each year Pacific Corp simply cancels out my credit thereby profiting from the net that I produced the previous twelve months.

The second error is that cost of infrastructure is negatively impacted by solar power production. In fact solar power reduces Pacific Corp infrastructure needs. The infrastructure is sized based on the need to provide power to consumers. The peak loads and stresses on the infrastructure occur on hot summer days when cooling loads are operating at their peak. That is precisely when solar panels produce the most power output. Therefore solar power reduces the need for more generating and transmission capacity which are huge infrastructure investments.

It is obvious that Pacific Corp is losing some revenue when others are producing power for there own consumption. I'm not opposed to Pacific Corp making a profit. They provide an indispensable service to consumers in the state of Utah. Fixing their sites on solar power is inexcusable.

Thank you for your consideration.

Sincerely, Michael K Norseth, PE



RMP Proposal

1 message

Heather Newport <heather@swimatbarleys.com> To: psc@utah.gov Sun, Dec 4, 2016 at 2:33 PM

I am writing you today to voice my opposition to the rate increase proposed by Rocky Mountain Power and ask that you deny Schedule 136 and its related Schedule 5 tariff. We should be encouraging our communities to move towards renewable energy sources instead of discouraging them with unnecessary fees and increased penalties. I am proud to participate in Utah's clean energy growth and hope that together we can continue to motivate our residents to consider solar and wind opportunities by increasing incentives and affordable clean energy programs. Allowing a monopoly to stifle our advancements in this field is not a smart move for our current situation and most certainly not for future generations to come.

I sincerely appreciate your time and consideration on this matter.

Heather Newport Salt Lake City Resident (801)755-6707



Rooftop Solar Proposal

1 message

bookreader54@gmail.com <bookreader54@gmail.com> To: "psc@utah.gov" <psc@utah.gov> Sun, Dec 4, 2016 at 3:19 PM

I would like to add my name to the list of residents who are strongly opposed to changes to the rooftop solar fee changes being proposed by Rocky Mountain Power. I have recently installed panels on my home and have done so due to the environmental benefits they have on our air quality. Additionally, they will assist my family as I ma heading into my retirement and will limit the costs of utilities thus increasing my income enabling me to remain in my home longer. Yes, we do need to better fund education, however, it needs to be done in ways that make sense for our population as it continues to grow and our air quality continues to become more dire. I think a moderate increase for all rooftop solar makes far more sense than hurting the expansion of roof top solar by changing the metering structure to a point it no longer is cost effective to install it. This will hurt the creation of new jobs in an industry that MUST grow overtime given its overall environmental benefit. Will Utah fail to take hold of this new industry which will only improve our quality of life for the sake of immediate financial gains? Can we not decide to be a leader in tis new technology instead of working to diminish or at worse, ruin it?

Pauline Zvonkovic and Michael Zvonkovic 949 W 2010 S Syracuse, UT 84075

Sent from Windows Mail



RMP

1 message

Hank Freeman <hank.freeman23@gmail.com> To: psc@utah.gov Sun, Dec 4, 2016 at 9:40 PM

Greetings: I urge the PSC to NOT grant RMP's proposal on solar energy in Utah. They are already a monopoly and trying to squash any competition. Solar industry has already been shut down completely in Nevada, citizens have no recourse as to clean, alternate power. That is the plan for here also. Please read and heed the info at utsolar.org/netmetering/. I have invested heavily in solar power at my home and even though RMP says I will be grandfathered, I seriously doubt that there will not be some restrictive actions from their proposal. This could add years to the pay-back of my expense.

Thank you for your time,

Hank Freeman (Registered voter).



RMP proposed rate increase

1 message

Mike Packard <mpackardslc@gmail.com> To: psc@utah.gov Sun, Dec 4, 2016 at 10:45 PM

I am another Utah citizen opposed to Rocky Mountain Power's proposed rate increase on solar customers. Their proposal is bad for Utah, bad for air quality, bad for business and bad for consumers.

Rocky Mountain Power is trying to use their monopoly power to eliminate a cleaner alternative power source for Utah citizens. Their proposed rate increase would destroy the residential solar industry in Utah, like their sister company, NV Energy, did to Nevada.

Your decision on this should be based on an independent third party evaluation of all of the costs and benefits of the solar industry, to all of Utah. Not just on the interests of Rocky Mountain Power.

Please do the right thing for the people, the environment and the businesses of Utah and reject Rocky Mountain Power's proposal.

Thank You, Mike Packard Salt Lake City Utah



rate increases for solar customers

1 message

ryan metzger <rmetzger111@gmail.com> To: psc@utah.gov Sun, Dec 4, 2016 at 11:17 PM

So Rocky Mountain Power conducted an analysis recently that let them to conclude that they'll need to increase rates for some customers. You should definitely put a lot of weight on their analyses and conclusions because they have no bias in this matter. There's no potential for skewed findings in their own assessments. No siree. Ryan Metzger Sandy, UT



Rocky Mountain Power's solar requests

1 message

Pam Anderson panderson@slcpl.org>
To: psc@utah.gov

Mon, Dec 5, 2016 at 9:24 AM

Greetings,

I'm taking the time to comment about this issue and hope it will be received and considered.

Rocky Mountain Power is using inflammatory language in a blatant attempt to rile up uninformed non-solar users in a money grabbing attempt to maintain profits. Phrases such as "not paying their fair share" and "non-solar users subsidize solar user's bills" are not only inaccurate, they are a feeble attempt to sway popular opinion in their favor.

As a solar customer I do not use more than my "fair share" of RMP's grid. If their basic fees, which I am assessed, do not cover the cost of maintaining power lines, then I request the following happen:

1. An independent audit of RMP must occur and an impartial party must determine what it actually costs a utility company to "maintain the grid"

2. This amount should be equally assessed to all customers, as a flat fee, clearly identified, and as a separate line item on each customer's bill. The current method of stating that the grid fee is rolled up into the actual consumption of energy fee is muddy, non-transparent, unaccountable, vague, not trackable, unfair, unethical, and may I suggest illegal.

3. No one subsidizes my electric bill. Most days we generate more than we use. We currently have a "credit" with RMP. No money ever changes hands. RMP is intentionally misleading the public to believe that solar customers are in fact receiving monetary reimbursements. The fact of the matter is, at the end of the year (March) I will be giving a free gift of excess power to RMP.

I propose that if RMP proposes to assign new fees and change the net metering agreement, the excess power generated by solar customers needs to bought back at the end of the cycle, not "donated" to RMP. They can't have it both ways.

4. Finally, I invested tens of thousands of dollars in a solar system based on the current structure of RMP's solar billing. For them to change the rules after I have been under this agreement for less than a year is an egregious money grab. I've read that the commission is wondering if it's legal for RMP to have different net metering rules for solar customers.

*If you don't allow RMP to grandfather in existing customers, we are all left with a huge financial investment but with power bill fees that could potentially make our bills as high as they were before. This is so anti-consumer, anti-clean energy, and anti-free market that I am stunned at the prospect that Utah is even considering it.

Rocky Mountain Power is losing profit due to their short sighted investment and strategies and is trying to line their pockets on the backs of consumers who are making investments in future technologies, cleaner strategies, and utility bills that we can control.

I implore you to put a stop to their aggressive attacks on solar customers. I request that you audit RMP and see where the truth lies in how much their product actually costs, not these generalized amounts they are throwing around in the news. It should not cost a solar customer more than it did when they were using full electricity!

Finally, RMP will keep bringing this forward to legislation until they get their way, unless the Commission and the State stand up to them, look out for consumers, the environment, and new markets, and make RMP prove their numbers with independent financial analysts and auditors.

Pam Anderson



Electricity

1 message

Samuel Acosta <acostasamuel77@yahoo.com> To: psc@utah.gov

Mon, Dec 5, 2016 at 9:51 AM

It appears to this consumer that Rocky Mountain Power and the like are more concerned with making ill founded justifications for a rate increase than providing their many customers with needed electricity at an affordable rate. The fact that this goes unopposed by their customers is directly connected to the lack of customer awareness. Mass media can help with this simply by keeping us all current on all of the affecting variables effecting the end result power prices. Said variables have become foreign to the common consumer in content and/or context of normal life and survival. Consumers are more concerned with simple bottom line cash results not knowing that many if not all variables considered may or may not be justifiable or just plan just.

Both wind and solar remain untapped in comparison to pollution causing coal and oil energy sources. Should we not continue to afford the users of these alternatives at least as much monetary encouragement as we do Big Oil and Big Coal or even as was done for the bail out of the auto industry? Why have the positive finding of wind and solar energy not received more attention? Why have Big Power Companies fought so fervently against ALL alternative sources of power? Doing so does help them make a dollar but what does it do for the masses? We are the masses.

The larger polluters of the state of Utah are empowered to control what we will pay for power, at what time we will pay, and in what quantities that unjustly differ according to BIG POWER misquided definitions. We have no say so in this and are forced to abide by laws that bind us to them. Why can't we simply disconnect from Big Power and generate our own energy as we need for ourselves? This all sounds so mafia oriented to me.

I don't believe we should agree to any increases in rates nor agree to them having any more control over how power/electricity should be controlled or distributed. The lengthy proposal they have offered smells of detailed filibuster stonewalling tactics that will lead to no good for the masses they serve.

Samuel G. Concerned consumer



Docket Number: 14-035-114; RMP & Solar

1 message

M W <bills4me@gmail.com> To: psc@utah.gov Mon, Dec 5, 2016 at 11:10 AM

Utah Public Service Commission (PSC):

In considering the changes proposed by Rocky Mountain Power (RMP) for Docket Number: 14-035-114, I have two requests for consideration:

- 1. If any changes are approved to net metering, please require that Rocky Mountain Power maintain existing net metering agreements as-is either indefinitely, or a minimum time period, such as 50 years.
 - In regard to the current proposal, RMP acknowledge that "current net metering customers made investments based on current rates and respect the need for reasonable certainty for recovery of these investments. As with any electric rate issue, our regulators could consider other changes now or in the future." (FAQ on http://utahsolarworks.com/net-metering/ on December 5, 2016)
 - At the time any changes to the current net metering agreement occur is the ideal time to limit how soon RMP can come back to request changes to net metering for existing customers. Based on their current statement, it seems to me that there is nothing to stop them from getting a change to net metering changed for new customers and then once that battle is won, turning and proposing changes for existing net metering customers, despite the "acknowledgement" that existing customers made purchases based on financials with the current net metering agreement.
 - RMP does note in the docket that replacing net meters for existing customers would be an expensive proposition at this time. However, with the rapid changes in technology, it is not a far stretch that within a few years it could be very economical to replace current net meters with newer low cost technology, in which case RMP will have incentive to propose added fees/costs for current customers.
- 2. Hire an independent party to review the RMP study, full data set, and additional data if necessary and report their findings (e.g. what does an independent party agree with? What do they disagree with? in RMP's assessment) before agreeing on significant changes to the net metering agreement structure for new customers.

Thanks for your consideration.

Mike Wessman

Herriman, UT

(full disclosure: I signed a net metering agreement with RMP and contact with solar installer in the past 2 months, but my system is not fully installed yet.)



RMP Solar Proposal

1 message

Ken Avellino <kavellino@gmail.com> To: psc@utah.gov Mon, Dec 5, 2016 at 11:41 AM

Having observed how Electric Power Companies across the nation treat customers who install private solar panels I can only assume that companies like RMP love solar as long as they are the producers.

Having moved to Utah 40 years ago one aspect of Utah government that impressed me has been the PSC. Unlike some other states the PSC seems to put the interests of consumers above the interests of public utility companies.

I understand why RMP would like to reduce the incentive for customers to install solar power. As an electric power customer who has installed solar power in the hot summer months I paid a minimum charge of \$6.00 for both June and July, since I used no power. However, what RMP ignores is that I used no power, but produced power and fed it back into the grid reducing the need for RMP to produce the power that I fed to their grid.

Their proposal would most certainly reduce the incentive for RMP customers to install their own solar power. RMP does allow customers to buy solar from them however as of this month they are no longer allowing new customers to purchase solar from them.

So it seems that they simply want to, ideally, shut down solar in Utah, while not providing a solar option for those who don't choose to install their own solar generating system.

I would ask the PSC to simply refuse this most recent request to see how solar develops. Solar will most certainly become an important source of electric energy production unless companies, like RMP, succeed in making it too expensive for homeowners to install solar generation systems. As Utah's economy grows the need for electric power will most certainly exceed the ability of RMP to provide needed power, as has already happened in California. Utah needs an active and economical solar industry, for jobs and for power production.

RMP's proposal is, to me, a case of killing the baby in the crib.



Rocky Mountain Power buys low, sells high

1 message

Jason L <jdludwigson@gmail.com> To: psc@utah.gov Mon, Dec 5, 2016 at 1:28 PM

Dear PSC,

I implore you to investigate the claims by Rocky Mountain power that net meter solar users are not "carrying their weight" by paying a fair share of the costs of maintaining a power network. This is demonstrably false. Net meter users can draw on the grid to provide power when the panels aren't producing enough to cover their needs but when the panels produce more, the power is put back into the grid. This is a net win for utilities as they can sell the excess power back at higher rates (without the overhead, transportation systems, fuel costs, and reduced maintenance i.e. offsetting costs) and provide the solar homeowners power at lower rates. I ask the Commission to conduct a robust and fair cost-benefit study so that Utah homeowners can continue to invest in solar and energy independence.

Jason Ludwigson Cell: 507-313-9633 JDLudwigson@gmail.com



Proposed rate increase

1 message

Thomas Filgo <tpfilgo@gmail.com> To: psc@utah.gov Mon, Dec 5, 2016 at 2:32 PM

Dear Commissioner,

I am writing to urge you to oppose the resent request by Rocky Mountain Power for a rate hike aimed at rooftop solar customers. This rate increase is an obvious move by RMP to discourage further growth of a grass roots effort by concerned citizens to clean up our environment and is yet another example of RMP's continued resistance to provide customers with clean energy.

With air quality along the Wasatch front being some of the worst in the country and with elected officials determined to remain tethered to fossil fuels, (65% coal for RMP) and who largely ignore the public health risks associated to our air quality, it's no surprise that Utah ranks dead last among 11 western states in providing renewable energy capacity per capita.

As "Public" Service Commissioners, I urge you to support policies that encourage the use of renewables by consumers for the benefit of public health and not those that solely benefit RMP and its shareholders.

I urge you to oppose this rate rate hike and the precedent that it sets.

Thank you for your consideration.

Thom & Shelly Filgo Sandy Utah

Sent from my iPad



Docket No. 16-035-21

1 message

David Whittaker <davidbwhittaker@hotmail.com> To: "psc@utah.gov" <psc@utah.gov> Mon, Dec 5, 2016 at 3:07 PM

Public Service Commision,

This email concerns Docket No. 16-035-21, up for review on Dec 13th. RMP's attempt to vastly increase service fees and eliminate Net Metering for home solar HAS NOT BEEN PROVEN TO SERVE THE PUBLIC GOOD. In order for RMP's claims to be assessed that RMP needs more money for infrastructure, transparency is key. Instead of asking themselves what the customers will pay, they need to justify rate increases, etc. with their customers by providing specific financial information about RMP.

As a public utility, RMP is responsible to us, the taxpayers & customers. The PSC is the public's voice. At this time, please reject RMP's requests for rate increases and elimination of net metering.

Thank you!

David Whittaker

davidbwhittaker@hotmail.com

801-655-3492



Net Metering Rate Increase

1 message

William Janic <janicllc@gmail.com> To: psc@utah.gov, crevelt@utah.gov Mon, Dec 5, 2016 at 3:23 PM

I already have solar on my home(so it does not affect me) but have a concern about the effect on the increase of continued growth of rooftop solar in Utah.

I respectfully submit this study done by The Brooking Institute that shows that most likely the claims made by RMP/PacificCorp are not correct.

I apologize for the graphics transfer to a PDF file. The study is at: https://www.brookings.edu/research/rooftop-solar-net-metering-is-a-net-benefit/

Thank you,

William Janic Stansbury Park, Utah

Rooftop solar: Net metering is a net benefit | Brookings Institution.pdf 360K

BROOKINGS

<u>Report</u>

Rooftop solar: Net metering is a net benefit

Mark Muro and Devashree Saha Monday, May 23, 2016

ooftop solar is booming in U.S. cities.

One of the most exciting infrastructure developments within metropolitan America, the installation of <u>over a million</u> solar photovoltaic (PV) systems in recent years, represents nothing less than a breakthrough for urban sustainability and the climate.

Prices for solar panels have <u>fallen dramatically</u>. Residential solar installations surged by 66 percent between 2014 and 2015 helping to ensure that solar accounted for <u>30</u> <u>percent</u> of all new U.S. electric generating capacity. And for that matter, recent analyses conclude that the cost of residential solar is often comparable to the average price of power on the utility grid, a threshold known as grid parity.

So, what's not to like? Rooftop solar is a total winner, right?

Well, not quite: The spread of rooftop solar has raised tricky issues for utilities and the public utilities commissions (PUCs) that regulate them.

Specifically, the proliferation of rooftop solar installations is challenging the traditional utility business model by altering the relationship of household and utility—and not just by reducing electricity sales. In this respect, the solar boom has prompted significant debates in states like New York and California about the best rates and policies to ensure that state utility rules and rates provide a way for distributed solar to

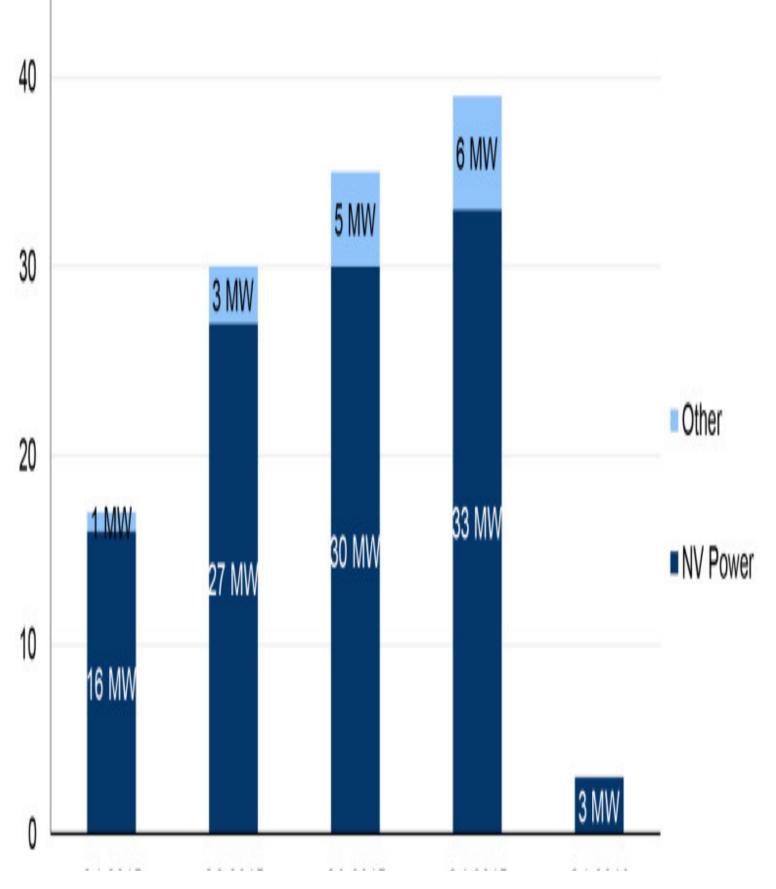
flourish even as utilities are rewarded for meeting customer demands. Increasingly, this ferment is leading to <u>thoughtful dialogues</u> aimed at devising <u>new forms of policy and</u> <u>rate design</u> that can—as in New York—encourage distributed energy resources (DERs) while allowing for distribution utilities to adapt to the new era.

However, in some states, the ferment has prompted a <u>cruder set of backlashes</u>. Most pointedly, some utilities contend that the "net-metering" fees paid to homeowners with rooftop installations for excess solar power they send back to the grid unfairly transfer costs to the utilities and their non-solar customers.

And so in a number of states, utility interests have sought to persuade state regulators to roll back net-metering provisions, arguing they are a net cost to the overall electricity system. Most glaringly, the local utility in Nevada <u>successfully wielded the cost-shift theory last winter</u> to get the Nevada Public Utilities Commission to drastically curtail the state's net-metering payments, prompting Solar City, Sunrun, and Vivint Solar—the state's three largest providers of rooftop panels—to <u>leave the Nevada market</u> entirely. The result: New residential solar installation permits plunged <u>92 percent</u> in Nevada in the first quarter of 2016.

Permits issued for Nevada residential PV by service territory Q1 2015 - Q1 2016 (MW)





https://www.brookings.edu/research/rooftop-solar-net-metering-is-a-net-benefit/

Q1 2015 Q2 2015 Q3 2015 Q4 2015 Q1 2016

Source: Bloomberg New Energy Finance, Construction Monitor

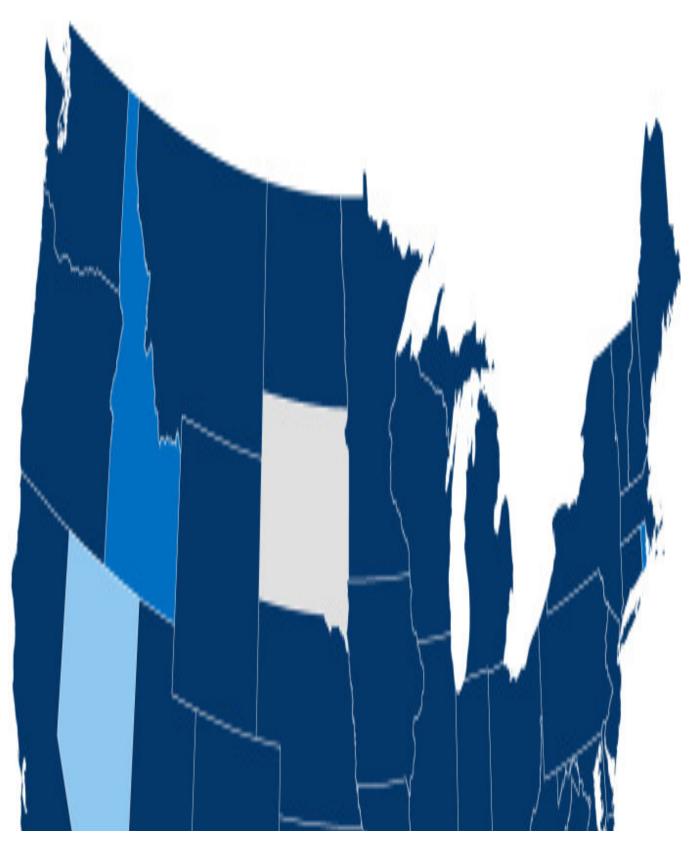
B Metropolitan Policy Program at BROOKINGS

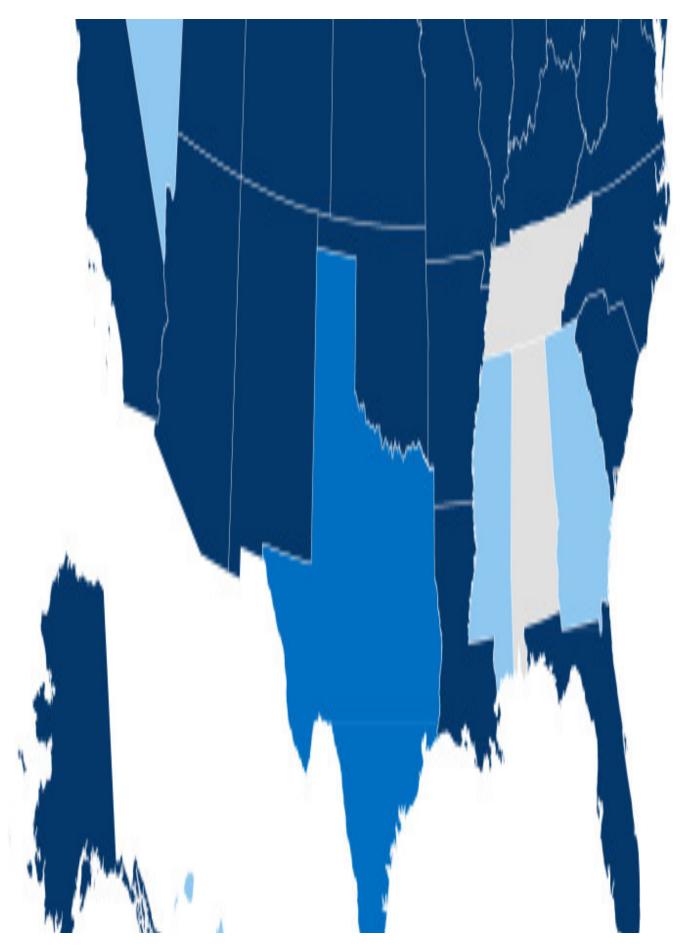
All of which highlights a burning question for the present and future of rooftop solar: Does net metering really represent a net cost shift from solar-owning households to others? Or does it in fact contribute net benefits to the grid, utilities, and other ratepayer groups when all costs and benefits are factored in? As to the answer, it's getting clearer (even if it's not unanimous). Net metering — contra the Nevada decision — frequently benefits all ratepayers when all costs and benefits are accounted for, which is a finding state public utility commissions, or PUCs, need to take seriously as the fight over net metering rages in states like <u>Arizona</u>, <u>California</u>, and Nevada. Regulators everywhere need to put in place processes that fairly consider the full range of benefits (as well as costs) of net metering as well as other policies as they set and update the policies, regulations, and tariffs that will play a critical role in determining the extent to which the distributed solar industry continues to grow.

41 States, DC, and four U.S. territories have mandatory net metering rules

https://www.brookings.edu/research/rooftop-solar-net-metering-is-a-net-benefit/

Increasing Inco





Rooftop solar: Net metering is a net benefit | Brookings Institution







State-developed mandatory net metering rules for certain utilities

No statewide mandatory net metering rules, but some utilities offer net metering

Statewide distributed generation compensation rules other than net metering

No statewide distributed generation compensation rules

Source: "The 50 States of Solar," by NC Clean Energy Technology Center and Meister Consultants Group



Fortunately, such cost-benefit analyses have become an important feature of state ratesetting processes and offer important guidance to states like Nevada. So what does the accumulating national literature on costs and benefits of net metering say? Increasingly it concludes— whether conducted by PUCs, national labs, or academics that the economic benefits of net metering actually outweigh the costs and impose no significant cost increase for non-solar customers. Far from a net cost, net metering is in most cases a net benefit—for the utility and for non-solar rate-payers.

Of course, there *are* legitimate cost-recovery issues associated with net metering, and they vary from market to market. Moreover, getting to a good rate design, which is essential for both utility revenues and the growth of distributed generation, is undeniably complicated. If rates go too far in the direction of "volumetric energy charges"—charging customers based on energy use—utilities could have trouble recovering costs when distributed energy sources reach higher levels of penetration. On the other hand, if rates lean more towards fixed charges—not dependent on usage—it may reduce incentives for customers to consider solar and other distributed generation technologies.

Moreover, cost-benefit assessments can vary due to differences in valuation approach and methodology, leading to inconsistent outcomes. For instance, a <u>Louisiana Public</u> <u>Utility Commission study</u> last year found that that state's net-metering customers do not pay the full cost of service and are subsidized by other ratepayers. How that squares with other states' analyses is hard to parse.

Nevertheless, by the end of 2015, <u>regulators in at least 10 states</u> had conducted studies to develop methodologies to value distributed generation and net metering, while other states conducted less formal inquiries, ranging from direct rate design or net-metering policy changes to general education of decisionmakers and the public. And there is a degree of consensus. What do the commission-sponsored analyses show? A growing number show that net metering benefits all utility customers:

- In 2013 Vermont's Public Service Department <u>conducted a study</u> that concluded that "net-metered systems do not impose a significant net cost to ratepayers who are not net-metering participants." The legislatively mandated analysis deemed the policy a successful component of the state's overall energy strategy that is cost effectively advancing Vermont's renewable energy goals.
- In 2014 a <u>study commissioned by the Nevada Public Utility Commission</u> itself concluded that net metering provided \$36 million in benefits to all NV Energy customers, confirming that solar energy can provide cost savings for both solar and non-solar customers alike. What's more, solar installations will make fewer costly grid upgrades necessary, leading to additional savings. The study estimated a net benefit of \$166 million over the lifetime of solar systems installed through 2016. Furthermore, due to changes to utility incentives and net-metering policies in Nevada starting in 2014, solar customers would not be significantly shifting costs to other ratepayers.

- A 2014 <u>study commissioned by the Mississippi Public Services Commission</u> concluded that the benefits of implementing net metering for solar PV in Mississippi outweigh the costs in all but one scenario. The study found that distributed solar can help avoid significant infrastructure investments, take pressure off the state's oil and gas generation at peak demand times, and lower rates. (However, the study also warned that increased penetrations of distributed solar could lead to lower revenues for utilities and suggested that the state investigate Value of Solar Tariffs, or VOST, and other alternative valuations to calculate the true cost of solar.)
- In 2014 Minnesota's Public Utility Commission approved a first-ever statewide <u>"value of solar"</u> methodology which affirmed that distributed solar generation is worth more than its retail price and concluded that net metering undervalues rooftop solar. The "value of solar" methodology is designed to capture the societal value of PV-generated electricity. The PUC found that the value of solar was at 14.5 cents per kilowatt hour (kWh)— which was 3 to 3.5 cents more per kilowatt than Xcel's retail rates—when other metrics such as the social cost of carbon, the avoided construction of new power stations, and the displacement of more expensive power sources were factored in.
- Another study commissioned by the Maine Public Utility Commission in 2015 put a value of \$0.33 per kWh on energy generated by distributed solar, compared to the average retail price of \$0.13 per kWh — the rate at which electricity is sold to residential customers as well as the rate at which distributed solar is compensated. The study concludes that solar power provides a substantial public benefit because it reduces electricity prices due to the displacement of more expensive power sources, reduces air and climate pollution, reduces costs for the electric grid system, reduces the need to build

more power plants to meet peak demand, stabilizes prices, and promotes energy security. These avoided costs represent a net benefit for non-solar ratepayers.

These generally positive PUC conclusions about the benefits of net metering have been supported by research done by a national lab and several think tanks. Important lab research has examined how substantially higher adoption of distributed resources might look.

In a forward-looking analysis of the financial impacts of net-metered energy on utilities and ratepayers, <u>Lawrence Berkeley National Lab</u> found that while high use of netmetered solar generation may decrease utility shareholders' earnings, it will have a "relatively modest" impact on ratepayers. The report examined solar penetration levels that are "substantially higher than [those that] exist today" — 10 percent compared to today's 0.2 percent — and concluded that "even at penetration levels significantly higher than today, the impacts of customer-sited PV on average retail rates may be relatively modest." The report further said that utilities and regulators "may have sufficient time to address concerns about the rate impacts of PV in a measured and deliberate manner"

Similarly, a growing number of academic and think tank studies have found that solar energy is being undervalued and that it delivers benefits far beyond what solar customers are receiving in net-metering credits:

> For instance, a <u>review of 11 net metering studies</u> by Environment America Research and Policy Center has found that distributed solar offers net benefits to the entire electric grid through reduced capital investment costs, avoided energy costs, and reduced environmental compliance costs. Eight of the 11 studies found the value of solar energy to be higher than the average local residential retail electricity rate: The

median value of solar power across all 11 studies was nearly 17 cents per unit, compared to the nation's average retail electricity rate of about 12 cents per unit.

- A 2015 <u>cost-benefit study</u> of net metering in Missouri by the Missouri Energy Initiative found that even accounting for increased utility administrative costs and the shifting of some fixed expenses, net metering is a net benefit for all customers regardless of whether they have rooftop solar. The study used values for two kinds of costs and two benefits and concluded that net metering's "net effect" is positive. The typical solar owner pays only 20 percent less in fixed grid costs and costs the utility an estimated \$187 per interconnection. Meanwhile, solar owners benefit the system through reduced emissions and energy costs.
- Likewise, a <u>study by Acadia Center</u> found the value of solar to exceed 22 cents per kWh of value for Massachusetts ratepayers through reduced energy and infrastructure costs, lower fuel prices, and lowering the cost of compliance with the Commonwealth's greenhouse gas requirements. This value was estimated to exceed the retail rate provided through net metering.
- In yet another study, <u>researchers at the University at Albany, George</u> <u>Washington University, and Clean Power Research</u> have found that solar installations in New York deliver between 15 and 40 cents per kWh to ratepayers. The study noted that these numbers provide economic justification for the existence of incentives that transfer value from those who benefit from solar electric generation to those who invest in solar electric generation.

In short, while the conclusions vary, a significant body of cost-benefit research conducted by PUCs, consultants, and research organizations provides substantial evidence that net metering is more often than not a net benefit to the grid and all ratepayers.

As to the takeaways, they are quite clear: Regulators and utilities need to engage in a broader and more honest conversation about how to integrate distributed-generation technologies into the grid nationwide, with an eye toward instituting a fair utility-cost recovery strategy that does not pose significant challenges to solar adoption.

From the state PUCs' perspective, until broad changes are made to the increasingly <u>outdated and ineffective standard utility business model</u>, which is built largely around selling increasing amounts of electricity, net-metering policies should be viewed as an important tool for encouraging the integration of renewable energy into states' energy portfolios as part of the transition beyond fossil fuels. To that end, progressive regulators should explore and implement reforms that arrive at more beneficial and equitable rate designs that do not prevent solar expansion in their states. The following reforms range from the simplest to the hardest:

 Adopt a rigorous and transparent methodology for identifying, assessing, and quantifying the full range of benefits and costs of distributed generation technologies. While it is not always possible to quantify or assess sources of benefits and costs comprehensively, PUCs must ensure that all cost-benefit studies explicitly decide how to account for each source of value and state which ones are included and which are not. Currently methodological differences in evaluating the full value of distributed generation technologies make comparisons challenging. States start from different sets of questions and assumptions and use different data. For instance, while there is consensus on the basic approach to energy value estimation (avoided energy and energy losses via the transmission and distribution system), differences arise in calculating other costs and benefits, especially unmonetized values such as financial risks, environmental benefits, and social values. In this regard, the Interstate Renewable Energy Council's <u>"A Regulator's Guidebook: Calculating the Benefits and Costs of Distributed Solar Generation"</u> and the National Renewable Energy Laboratory's <u>"Methods for Analyzing the Benefits and Costs of Distributed Photovoltaic Generation to the U.S. Electric Utility System" represent helpful resources for identifying norms in the selection of categories, definitions, and methodologies to measure various benefits and costs.</u>

- Undertake and implement a rigorous, transparent, and precise <u>"value of solar"</u> analytic and rate-setting approach that would compensate rooftop solar customers based on the benefit that they provide to the grid. Seen as an alternative to 'traditional' net-metering rate design, a "value of solar" approach would <u>credit solar owners</u> for (1) avoiding the purchase of energy from other, polluting sources; (2) avoiding the need to build additional power plant capacity to meet peak energy needs; (3) providing energy for decades at a fixed prices; and (4) reducing wear and tear on the electric grid. While calculating the "value of solar" is very complex and highly location-dependent, ultimately PUCs may want to head toward an approach that accurately reflects all benefits and costs from all energy sources. Value of solar tariffs are being used in Austin, Texas (active use) and Minnesota (under development).
- Implement a well-designed <u>decoupling mechanism</u> that will encourage utilities to promote energy efficiency and distributed generation technologies like solar PV, without seeing them as an automatic threat to their revenues. As of January 2016, <u>15 states have implemented electric</u>

<u>decoupling</u> and eight more are considering it. Not surprisingly, it is states that have not decoupled electricity (such as Nevada) that are fighting net metering the hardest. Typically, decoupling has been used as a mechanism to encourage regulated utilities to promote energy efficiency for their customers. However, it can also be used as a tool to incentivize net metering by breaking the link between utility profits and utility sales and encouraging maximum solar penetration. Advocates of decoupling note that it is even more effective when paired with <u>time-of-use pricing</u> and <u>minimum monthly</u> <u>billing</u>.

• Move towards a rate design structure that can meet the needs of a distributed resource future. A sizable disconnect is opening between the rapidly evolving new world of distributed energy technologies and an old world of electricity pricing. In this new world, bundled, block, "volumetric" pricing-the most common rate structure for both residential and small commercial customers-can no longer meet the needs of all stakeholders. The changing grid calls, instead, for new rate structures that respond better to the deployment of new grid technologies and the proliferation of myriad distributed energy resources, whether solar, geothermal, or other. A more sophisticated rate design structure, in this regard, would take into consideration three things: (1) the unbundling of rates to specifically price energy, capacity, ancillary services, and so on; (2) moving from volumetric bloc rates to pricing structures that recognize the variable time-based value of electricity generation and consumption (moving beyond just peak versus off-peak pricing to fully real-time pricing); and (3) moving from pricing that treats all customers equally to a pricing structure that more accurately compensates for unique, location-specific and technology specific values.

• Move towards a performance-based utility rate-making model for the

modern era. <u>Performance based regulation</u> (PBR) is a different way of structuring utility regulation designed to align a utility's financial success with its ability to deliver what customers and society want. Moving to a model that pays the utility based on whether it achieves quantitatively defined outcomes (like system resilience, affordability, or distributed generation integration) can make it profitable for them to pursue optimal grid solutions to meet those outcomes. The new business model would require the PUC and utilities to make a number of changes, including overhauling the regulatory framework, removing utility incentives for increasing capital assets and kilowatt hours sold, and replacing those incentives with a new set of performance standard metrics such as reliability, safety, and demand-side management. New York's <u>Reforming the Energy Vision</u> proceeding is the most high-profile attempt in the country to implement a PBR model.

Options also exist for utilities to address the challenges posed by net metering:

- Utilities, most notably, have the opportunity to adjust their existing business models by themselves <u>owning and operating distributed PV assets</u> (though not to the exclusion of other providers). On this front, utilities could move to assemble distributed generation systems, such as for rooftop solar, and sell or lease them to homeowners. In this regard, utilities have an advantage over third-party installers currently dominating the residential rooftop solar industry due to their proprietary system knowledge, brand recognition, and an existing relationship with their customers. Utilities in several states such as Arizona, California, and New York are <u>investigating or have already</u> <u>invested</u> in the opportunity.
- Furthermore, utilities can also push the envelope on grid modernization by investing in a more digital and distributed power grid that enables interaction

with thousands of distributed energy resources and devices.

Ultimately, distributed solar is here to stay at increasing scale, and so state policies to support it have entered an important new transitional phase. More and more states will now likely move to update their net-metering policies as the cost of solar continues to drop and more homeowners opt to install solar panels on their homes.

As they do that, states need to rigorously and fairly evaluate the costs and benefits posed by net metering, grid fees, and other policies to shape a smart, progressive regulatory system that works for all of the stakeholders touched by distributed solar.

Utilities should have a shot at fair revenues and adequate ratepayers. Solar customers and providers have a right to cost-effective, reliable access to the grid. And the broader public should be able to expect a continued solar power boom in U.S. regions as well as accelerated decarbonization of state economies. All of which matters intensely. As observes the North Carolina Clean Energy Technology Center and Meister Consultants Group: "How key state policies and rates are adapted will play a significant role in determining the extent to which the [solar PV] industry will continue to grow and in what markets."



PublicService Commission <psc@utah.gov>

Please Do Not let Rocky Mountain power make changes to the Home solar industry

1 message

Mark T <mtrout100@hotmail.com> Mon, Dec 5, 2016 at 3:39 PM To: "ocs@utah.gov" <ocs@utah.gov>, "psc@utah.gov" <psc@utah.gov>, "jsadams@le.utah.gov" <jsadams@le.utah.gov>, "sbarlow@le.utah.gov" <sbarlow@le.utah.gov>

Please do not allow Rocky Mountain to pass the increases and change how Home solar energy is treated and Categorized.

I just installed solar on my home. I have at Rocky Mountain put a device on my AC unit to help them choose usage. I have signed up for Rocky Mountains Power Report card comparing me with neighbors. I have don all of this help conserve power so rates and blackouts do not accrue. I Rocky Mountain has asked and when we try to do more Rocky mountain changes the rules for solar production.

Is Rocky Mountain trying to conserve electricity or they trying to raise their rates and create the need for more Power and the need to build expensive generation plants. Allow us to help the power crises to keep rates lower for everyone.

Thank you

Mark Trout

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