From: Alan Anderson <[redacted]>
Sent: Monday, May 10, 2021 5:12 PM
To: PUC-PUC <PUC@state.sd.us>
Subject: [EXT] Comments on Docket EL21-0011

Public Utilities Commission
Capitol Building
500 E. Capital Ave.
Pierre, SD 57501-5070

May 10, 2021

Subject: Comments on Docket EL21-011

Dear PUC Commissioners,

I am opposed to the application brought by Black Hills Power, Inc. (BHP) to Amend its Cogeneration and Small Power Production Service Tariff in Docket EL21-011. I feel that approval of this tariff would be detrimental to the future of the residential solar companies in South Dakota, the ability of our residents to freely manage their electrical energy costs, the trusted relationship between BHP and its customers, the resiliency of individuals and small companies during grid failures, and the reputation of South Dakota as a state that values individual rights. What is most disappointing is that the detrimental effects that this tariff would cause are entirely unnecessary.

Other reasons that I think make this tariff unwise at this point: The prospect of revenue erosion which I think is at the core of this proposal is normally discussed as an issue with utilities that have Net Energy Metering (NEM) rates and that rely completely on flat rate volumetric pricing, neither of which are the case currently with BHP. The social and political environment is starting to lean heavily to significant emphasis on rapid conversion of our electrical system to renewable energy. This tariff would lean us somewhat in the other direction which could be financially impactful in the future. I think this tariff would give people and business that we encourage to move here the impression that we value fossil fuel based power over renewable power and that we value the wishes of an IOU over the wishes of its customers.

I chose to install a solar system in 2014 in varying degrees because of a desire to reduce my energy costs, provide a resilient source of energy during grid failure events, and to realize the environmental benefits of reducing greenhouse gas emissions. It has helped me realize those desires ... especially when the power goes

out. This tariff would effectively hinder BHP customers from realizing these desires in the future. BHP should not be allowed to use its status as a regulated monopoly to damage or possibly destroy the fragile, but rapidly developing, solar industry in this area. This is particularly important when they offer no alternative for residential or small commercial customers to buy renewable energy from them.

The Public Utility Regulatory Policies Act of 1978 (PURPA) was enacted to encourage cogeneration and renewable resources and promote competition for electric generation. It also sought to encourage electricity conservation. This law has been quite impactful and has, in my opinion, been the primary driver in the successful building of large solar industry in this country by mandating cooperation from electric utility monopolies. The states that implemented NEM developed those industries rapidly until they reached a high level of adoption at which point they implemented pricing changes (often called NEM2.0) that rebalanced customer and utility costs and benefits from solar. The structure of many of those NEM2.0 pricing systems bear some resemblance to the pricing system currently in place here (decoupled - flat volume rate with a fixed charge). I think BHP rates are already at the minimum allowed by PURPA given our implementation of the fuel only based cost avoidance re-imbursement allowed in South Dakota. Many, perhaps most, utilities still provide for higher residential solar benefits than those provided by BHP. This tariff would drive the overall residential power reimbursement from BHP even lower.

In preparation for commenting on this tariff, I read the **National Association of Regulatory Utility Commissioners (NARUC) Manual on Distributed Energy Rate Design and Compensation.** As you know, it was developed to provide guidance and a structure for rate design in this rapidly changing electric utility market. With the benefit of that review, I feel that this tariff is unnecessary because the company is in good financial condition, increasing its dividends each year and paying its people relatively well. They don't seem to be impacted so far by residential solar. The current level of adoption of PV systems in this coverage area is far below the level that studies show would have any significant effect on the rates of non solar residents. The rate at which solar PV is likely to grow in this area in the near future without NEM and any meaningful state financial incentives should not be impactful on a company with a such large customer base.

BHP has provided no real justification or analysis for this tariff. An anecdotal statement about cost shifting that pits PV customers against non-PV customers and a bicycle analogy that I think is weak and an oversimplification should not be accepted as justification. This is a much more complicated issue than that and is worthy of an empirical look. From the NARUC manual "Then, after empirically establishing at what adoption level DER will affect the grid, regulators should explore and implement rates and compensation methodologies that will lead to greater benefits for the public, customers, developers, and utilities alike."

Towards an empirical look here are value categories considered in 15 Value of Net Metering and Solar Studies. From **- Review of Recent Cost-Benefit Studies Related to Net Metering and Distributed Solar, May, 2018. Prepared for the U.S. Department of Energy by ICF.** The + and - characters symbolize whether the category had a positive or negative utility system impact.

- Avoided Energy Generation +
- Avoided Generation Capacity +
- Avoided Environmental Compliance +
- Fuel Hedging +
- Market Price Response +
- Ancillary Services +/-
- Avoided Transmission Capacity+
- Avoided Line Losses +
- Avoided Distribution Capacity +

- Avoided Resiliency & Reliability +
- Distribution O&M +/-
- Distribution Voltage and Power Quality +/-
- Integration Costs -
- Lost Utility Revenues -
- Program and Administrative Costs -
- Avoided Cost of Carbon +
- Other Avoided Environmental Costs +
- Local Economic Benefit +

This is a complicated, dynamic issue and the other utilities, PUCs, and states in the U.S. and other countries are in the same boat. The short and long term solutions that utilities adopt will have a meaningful impact on our economy and our environment for a long time to come. My children and grandchildren always come to mind when I make statements like this. Much has been written about how, when, and why different states are adapting from a well developed fossil fuel based model to one that is appropriate for now and will take us into the renewable future that is inevitable. To get a better idea of how rates are typically set, I reviewed a report titled **Review of State Net Energy Metering and Successor Rate Design**, co-authored by Tom Stanton, a principal researcher for Energy and Environment at the National Regulatory Research Institute (NRRI) and Jamie Barber, Energy Efficiency and Renewable Energy Manager, Georgia PSC and Chair of the National Association of Regulatory Utility Commissioners (NARUC) Staff Subcommittee on Rate Design. It does a very good job showing where many utilities were in 2018 and the recent changes they were making....and why. It's a couple years old but the discussion is very informative. The Board of Directors for NRRI is an experienced and impressive group, one gentleman in particular. The review by Mr. Stanton and Mr. Barber showed, in my opinion, that most states can set rates, in this complicated dynamic environment, in such a way as to accommodate and even incentivize residential solar and have a healthy utility and economy.

One of the many things I learned from the above report is that Buy All Sell All is not new. My research found that it had been adopted by at least three states at that point. Unlike South Dakota, those states were moving from a high level of adoption NEM status to their version of NEM2.0. It seems that the move was required by their legislatures or PUC , appeared to me to be politically motivated, and caused quite a stir with the PV solar community in at least two states. I also examined the pricing structure for Austin Energy (AE) in Texas. It was described in one reference as a Buy All Sell All system. From the information on their website it appears that they actively incentivize installation of residential solar and pay a high Value of Solar credit ($0.097 /kWh) to solar customers based on value of solar analysis. The impression they give is that they value residential solar as a partner. They pay a high Value of Solar credit to the residential generators for the "metered kilowatt-hour output of the customer's photovoltaic system", whether the customer consumes it or sells it to the utility. The rate that AE charges for the solar energy self-consumed plus the energy delivered from AE (described by the term - total metered energy) is based on a sliding scale that can be considerably less than the Value of Soar rate for less than 500 kWhs ($0.02801 / kWh) and approximately equal to the Value of Solar rate at higher than 2,500 kWhs ($0.10814 / kWh). The big difference between the BHP Buy All Sell proposal and the AE rate structure, in my opinion, is that with the BHP proposal, the low amount BHP pays for the energy (approximately $0.025 / kWh) dis-incentivizes the solar industry development and resident adoption of residential solar, whereas the AE rate structure incentivizes residential solar generation and conservation. An examination of AE's 4th Qtr 2020 Financial statement I think shows a stable company in good financial condition with residential power rates similar to those of BHP.

What are other states doing to update their solar policy? The following report reviewed recent studies from 46 states and the District of Columbia and summarized the policy trends that states and utilities are currently considering to varying degrees.

From - **Q4 2020 Quarterly Report & 2020 Annual Review Executive Summary, NC Clean Energy Technology Center, January 2021**

TOP SOLAR POLICY TRENDS OF 2020

- Utilities Proposing Additional Fees Based on System Capacity
- States Adopting Unique Net Metering Successor Policies
- Net Metering Successor Tariffs Being Considered on a Utility By Utility Basis
- States and Utilities Considering Time-of-Use Crediting for Net Metering
- Utilities Continue to Propose Fewer and Smaller Residential Fixed Charge Increases
- Interest Growing in Minimum Bills as a Distributed Generation Rate Design Element
- States Considering Expansion of Existing Community Solar Programs
- Strong Movement Away From Mandatory Residential Demand Charges
- States Establishing Timelines for Net Metering Successor Transitions

There are alternatives to a Buy All Sell All tariff. Some may help here.

- Increase fixed charge for all residential.
- Demand Charges, Peak Charges, Interconnection Charge.
- Stakeholder workshops to explore modified rate design proposals.
- Smart Meters - Time of Use prices/credits.
- BHP utility-led program - customer hosted utility owned rooftop program.
- Allow, Incentivize community / microgrid solar.
- Rapidly increase utility large scale implementation of renewables & batteries so customers will feel less of a need to install them.
- Analyze & Plan for smooth incorporation of pending EV wave. Grid capacity and charging stations.
- Develop long range plan to substitute fossil fuel energy with renewable.
- Change utility profit incentive method from that based on capital improvements.
- Encourage and partner with solar customers.
- Update the BHP 2011 IRP with bold plan to get serious about getting off fossil fuels quickly, Incorporate DEG growth.
- Conduct a Value of Solar Study and incorporate a relevant rate policy.

One of the major pieces of information I feel is missing in the analysis of where we should go next in rate making policy is an independent Value of Solar study for utilities in South Dakota. Many states have accomplished it and many sources encourage it.

Source: North Carolina State University - **NCSU-CETC, 2016-2018e, 50 States of Solar report series**.

"These value-studies can serve multiple purposes, not just rate setting. VOS or VDER can be calculated and used as a point of reference to see how current estimates relate to wholesale avoided costs or retail prices, and to understand how current and near-term future DER costs compare to the calculated values, with and without various financial incentives and other policy supports. One consistency that does emerge from several of these studies to date is a recognition that distributed resources are generally more valuable than bulk

power in the wholesale market, due mainly to cost savings because of reduced transmission and distribution system losses, and often adding some estimated value for environmental benefits. But, several studies have also concluded that distributed resources are less valuable than the full retail rate."

Source: NARUC **Manual on Distributed Energy Rate Design Compensation**

"Some jurisdictions, utilities, researchers, and advocates have also concluded or posited that responsible encouragement of other types of DER adoption leads to positive cost benefit results." p.71

"At the very least, neglecting DER benefits could represent a lost opportunity to meet customer needs"

"For example, several states are exploring how to use DER to avoid infrastructure investments." p.71

"Environmental benefits of distributed carbon-free generation and the ancillary services markets of many RTOs are examples of recent attempts at increased quantification of benefits." p.72

"Some advocates have pushed for including even more benefit categories, such as economic development or jobs." p.73

"Regardless of what direction regulators of any particular jurisdiction would like to take in the future, the acknowledgment and study of these benefits will be necessary. As such, this is what must be given thorough consideration by a regulator". p.73

In my opinion, BHP is in a tough spot. They are primarily a fossil fuels based energy company at a time when the world is shifting rapidly to renewable energy. There is no easy way for them to make that shift. In some cases the technology and legislation needed are not currently in place. However, they have good employees, a good management team, and are in good financial condition. They have started with several large scale wind and solar projects but there is a long way to go. There are many ways to make the technical changes necessary to make the transition but they require a desire to do so and serious analysis of the alternatives. The long term health of the company may depend on how well they make this transition. It may require major changes in relationships with customers, thinking outside the box and more risk taking than in the past. I believe this tariff will not help in this effort and will be a detriment and a setback in the transition process.

Thanks for your consideration.

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