Q. Please state your name, business address and present position with PacifiCorp, dba Rocky Mountain Power (the "Company").

A. My name is Gary W. Hoogeveen. My business address is 1407 West North Temple, Suite 310, Salt Lake City, Utah 84116. My present position is Senior Vice President and Chief Commercial Officer of Rocky Mountain Power.

Qualifications

Q. Please summarize your education and business experience.

A. I have a B.S. degree in Physics from the University of Northern Iowa and Masters and Ph.D. degrees in Space Physics from Rice University. For the last 16 years, I have worked for the Berkshire Hathaway Energy family of companies. In the five years immediately preceding my current position at Rocky Mountain Power, I served as President and Chief Executive Officer of the Kern River Gas Transmission Company headquartered in Salt Lake City.

Q. What are your responsibilities with Rocky Mountain Power?

A. My main responsibilities focus on community affairs, public policy and building relationships with our communities. These relationships facilitate open communication that allow the Company to understand the needs of our customers and to develop or change policies and programs that will meet those needs and keep pace with the evolving environment. We work diligently across our organization to offer the services our communities and customers want, without adversely affecting other customers. I have been personally involved in advancing new programs that provide additional options for customers who want more renewable energy and have overseen the development of those programs with the objective of balancing the needs of all customers and the Company's obligation to provide safe, reliable and efficient electric service.

Purpose and Summary of Testimony

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to introduce and support the Company's Compliance Filing and Request to Complete All Analyses Required Under the Net Metering Statute for the Evaluation of the Net Metering Program ("Compliance Filing"). The Compliance Filing includes the components that comply with the Order issued by the Public Service Commission of Utah ("Commission") in this docket on November 10, 2015 ("November 2015 Order"), enabling the completion of the evaluation of the net metering program required by Utah Code Ann. § 54-15-105.1 (the "Net Metering Statute"). The Compliance Filing requests modifications to the net metering program, including a new rate structure for residential net metering customers. I also describe a corresponding tariff advice letter, filed concurrently with the Compliance Filing, that requests to close to new service the currently effective Schedule 135, Net Metering Service, and approve, in its place, proposed Schedule 135A, which mirrors Schedule 135 and would be in place temporarily until the Commission makes the final determination in Subsection Two (as defined below) of the Net Metering Statute. I will give an overview of the major components of the Company's filings, explain why the Company's proposals should be adopted and identify the witnesses who will present the details of the filings.

Q. Please summarize your testimony.

A. My testimony provides a general overview of the Compliance Filing and the concurrently-filed tariff advice filing that are intended to complete the final phases of the evaluation of the Company's net metering program, required by the Net Metering Statute. The Net Metering Statute requires the Commission to "determine a just and reasonable charge, credit or ratemaking structure, including new or existing tariffs, in light of the costs and benefits of the net metering program." Consistent with the November 2015 Order, the Company prepared actual and counterfactual cost of service studies ("ACOS" and "CFCOS") and a study with net metering segregated into its own class ("NEM Breakout COS"). The studies use calendar year 2015 actual data, including data collected from the Company's load research study for residential net metering customers. The ACOS and CFCOS were prepared consistent with Commission-approved standards for cost of service that have evolved over many years. The Company's data demonstrates that the costs of the net metering program do, in fact, exceed its benefits and that residential customers with private generation systems have unique load and cost characteristics that require modification from the current rate structure to avoid cost-shifting to other customers. Recent exponential growth of the net metering program, evident in the data supporting this filing and described in detail below and in supporting testimony, precipitated this Compliance Filing and the concurrent tariff advice filing, requesting immediate relief.[1] This dramatic growth forms the basis for the

[1]As part of this docket, the Commission left open the possibility of addressing the ratemaking structure of the net metering program, "in a further phase of this docket, a general rate case or other appropriate proceeding." November 2015 Order at 1.

Company's recommendation to replace the current rate structure for residential net metering customers with its proposed three-part rate structure, which includes a fixed monthly charge, an on-peak demand, and an energy charge. Proposed Schedule 5 reflects the costs and benefits to the system, and the unique load and cost characteristics of net metering customers. In the interim, the Company also proposes a transition tariff, Schedule 135A, as described below.

The Company supports renewable resources and customer choice for additional renewable products as long as an appropriate rate structure is in place that allows customers to use private generation without adversely affecting other residential customers or the Company. However, the combination of declining prices for private generation systems, generous government subsidies and excessive retail rate compensation for their generation has contributed to exponential growth that shifts costs to the Company and its other customers. This growth renders the current ratemaking structure for residential net metering customers unsustainable; accordingly, that structure must change to prevent adverse impacts to other customers.

As is demonstrated by the results of the comparison of the ACOS to the CFCOS, under the current net metering program, the costs of the program exceed the benefits to the system, and the costs that should be paid by net metering customers are shifted to other customers. With no change, this will result in increasing levels of subsidies in favor of net metering customers built into other customers' rates in future rate cases. In between cases, the Company bears the costs resulting from the incremental growth in the number of new net metering customers. This is the type of situation that was contemplated in the Commission's order approving the change to the net metering cumulative generation capacity to a 20 percent cap of the Company's 2007 peak load from 0.1 percent. In that order, the Commission extended an invitation to the Company to return to the Commission if the extremely generous cap of 20 percent proved to be harmful.[2] For the net metering program to continue, its rate structure must be corrected to accurately reflect the impact of the program on the system and to properly allocate costs between customers as part of proper rate design.

Filing Request

Q. What does the Company seek in its filings?

A. In this Compliance Filing, the Company requests that the Commission:

(1) Find that the CFCOS, the ACOS, and the NEM Breakout COS are compliant with and fulfill the November 2015 Order;

(2) Find, based on the cost of service analyses, that the costs of the net metering program under the current structure exceed its benefits;

(3) Find, based on the cost of service analyses, that the unique usage characteristics of residential net metering customers justify segregating them into a distinct class for ratemaking;

(4) Determine that the current rate structure for residential net metering customers is unjust and unreasonable because it does not reflect the costs imposed on and the benefits contributed to the system and unfairly shifts costs of net metering customers to other customers;

[2] Docket No. 08-035-78, Report and Order, at 13 (Utah P.S.C. February 12, 2009).

(5) Approve and implement the Company's net metering program modifications in the new Schedule 136 for net metering service, including new application fees for interconnections and elimination of the option for non-residential customers to take compensation at the average retail rate for excess generation, effective June 1, 2017;

(6) Approve and implement new rates on Electric Service Schedule 5 for residential customer generators that account for their differing load characteristics and ensure that net metering customers pay for the fixed costs for infrastructure, backup grid reliability, and electric service they require, effective June 1, 2017; and

(7) Approve a waiver of Utah Admin. R. 746-312-13 to implement new application fees, as explained in more detail in Company witness Ms. Joelle R. Steward's testimony.

Because time is of the essence due to the increasing growth in net metering customers, the Company also seeks, through its concurrent tariff advice filing, approval to close current Schedule 135 service to prospective net metering customers who apply for net metering service after December 9, 2016. In addition, the Company requests approval and implementation of Schedule 135A to be effective after December 9, 2016, to be in place temporarily until the Commission rules on Subsection Two of the Net Metering Statute (as defined below). Schedule 135A differs from Schedule 135 only in that it states "Customers will be subject to all changes to net metering service including changes to credits, charges or rate structures offered herein and in related tariffs resulting from the final determination under Utah Code Ann. § 54-15-105.1 which may include, without limitation, a transfer from this tariff to all new applicable service schedules approved by the Commission."

The advice filing also includes a request for approval of a slight modification to the Interconnection Agreement for Net Metering Service with the Company, reflecting the shift to the new schedule at the appropriate time and administrative updates. Prospective net metering customers applying for net metering service after December 9, 2016, would be on notice that their rates may change upon a final determination on Subsection Two of the Net Metering Statute.

Q. Why does the Company believe that a change to Schedule 135 is necessary at this time?

A. The Net Metering Statute requires the Commission to reconsider the ratemaking structure in light of the costs and benefits of the program.[3] Due to the exponential growth of net metering, it is imperative that the Commission consider the issue immediately to prevent significant cost shifts from net metering customers to all other customers. The Company's proposed change to the current net metering tariff achieves the purpose and mandate of Senate Bill 208, enacted by the Utah Legislature and signed into law on March 25, 2014, including the Net Metering Statute, which reads:

> 54-15-105.1 Determination of costs and benefits - Determination of just and reasonable charge, credit or ratemaking structure.
>
> The governing authority shall:

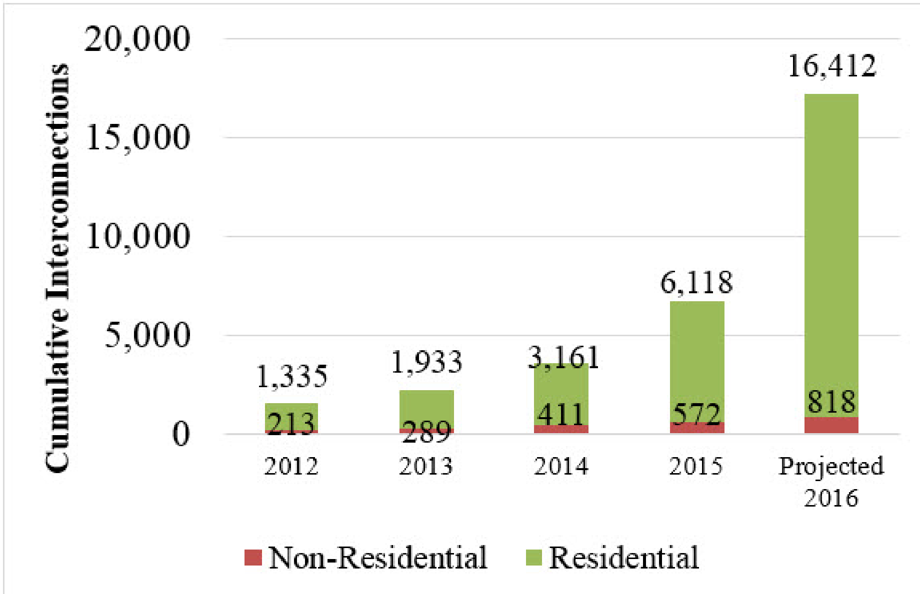
[3] *See also* Utah Code Ann. § 54-4-4(1)(a)(i) and (ii) (requiring the Commission to take action if there is a finding that "rates ... are unjust, unreasonable ... or ... insufficient.")

> (1) determine, after appropriate notice and opportunity for public comment, whether costs that the electrical corporation or other customers will incur from a net metering program will exceed the benefits of the net metering program, or whether the benefits of the net metering program will exceed the costs; and
>
> (2) determine a just and reasonable charge, credit, or ratemaking structure, including new or existing tariffs, in light of the costs and benefits.

Utah Code Ann. § 54-15-105.1 (hereafter, § 54-15-105.1(1) will be referred to as "Subsection One" and § 54-15-105.1(2) as "Subsection Two").

The Commission opened the current docket to ensure a focused, complete, and appropriate evaluation of the net metering program. In its November 2015 Order, the Commission approved the appropriate framework for the Subsection One analysis, and directed the Company to file its ACOS, CFCOS, and NEM Breakout COS. The Compliance Filing satisfies the Commission's directive. As is demonstrated by the cost of service analyses, supported by the testimony and exhibits of Company witness Mr. Robert M. Meredith, residential net metering customers are not adequately covering the fixed costs associated with their use of the grid. These costs are then shifted to all other customers. Private generation is growing exponentially. In 2013, the Company was providing net metering service to approximately 2,200 net metering customers. At the end of calendar year 2015, approximately 6,700 of the Company's Utah residential customers were enrolled on Schedule 135. As of October 7, 2016, 7,000 additional customers have enrolled, with over 3,500 more expected to enroll by the end of the year. As more customers enroll in net metering, the cost shift to other customers is increasing and will continue to do so if not addressed. Figure 1 below demonstrates the cumulative count of customers participating in net metering over the past several years as well as the Company's projection for the end of 2016.

Figure 1. Growth in Net Metering Participation



Q. Why should residential net metering customers be subject to a different rate structure than other residential customers?

A. As is demonstrated by the testimony and exhibits filed by Company witnesses Ms. Joelle Steward and Mr. Douglas L. Marx, the usage characteristics of net metering customers differ from other residential customers, which the current rate structure fails to adequately capture. Net metering customers use the grid more than other customers because they both import and export electricity. In addition, because peak solar generation often does not coincide with the time of the Company’s peak load, net metering customers' private generation systems have only a modest ability to reduce peak load. The Company incurs costs to build its system to meet peak load. Mr. Marx testifies that a net metering customer’s peak production to the grid occurs during the spring months, but their peak demand occurs during summer months. These factors result in the need to increase the size of the distribution facilities as a result of net metering.

Q. What rate structure is the Company proposing?

A. To satisfy Subsection Two of the Net Metering Statute, the Company proposes a three-part rate structure that accounts for the unique load characteristics of residential net metering customers and ensures that net metering customers pay their fair share of fixed costs for infrastructure and backup grid reliability. This rate design appropriately matches the costs to the customers that cause them. The proposed rate structure includes a fixed monthly charge, a charge for demand during peak hours, and an energy charge. The Company's proposed three-part structure is calculated based on the Company's cost of service studies. The proposed rate structure is described in more detail in the testimony and exhibits of Ms. Steward.

Q. When does the Company propose the new rate structure take effect?

A. The Company requests the new rates take effect June 1, 2017. In Subsection Two of the evaluation, the Commission must determine the appropriate charge, credit or ratemaking structure in light of the costs and benefits determined in Subsection One. Once the cost/benefit analysis under Subsection One is accepted, and a showing is made that the costs of the net metering program exceed its benefits, the Commission must implement Subsection Two in accordance with the mandate of the Net Metering Statute. The Company proposes that the new rate structure become effective when the Commission approves Schedule 136 and Schedule 5, which the Company respectfully requests be by June 1, 2017, and that it apply to new net metering customers on a prospective basis, as explained in detail in Ms. Steward's testimony.

Q. How does the Company propose to treat current net metering customers?

A. The Company supports keeping the current net metering customers on the existing net metering program and their current rate schedule. We acknowledge that current customers made investments based on the current structure and respect the customers' need for reasonable certainty for recovery of their investments. The Company expects this issue to be considered in a future proceeding. Current customers may voluntarily opt in to the new Schedule 5.

In addition, current net metering customers generally do not have meters that are capable of billing the on-peak demand charge that is included in the proposed rate structure. Transitioning these customers to the new schedule would be operationally and administratively challenging.

History of Net Metering in Utah

Q. What is the history of the net metering program in Utah?

A. As a result of a Commission order in Docket No. 97-035-01, the Commission agreed to organize a task force in the "interest of concrete proposals, well analyzed as to the costs and benefits, and specifics of program delivery …" with respect to energy efficiency and renewable resources.[4] The order outlined specific programs for which the parties requested analysis. Included in this list were green pricing, *net metering*, and energy efficiency. On December 23, 1999, the Energy Efficiency and

[4] *See In the Matter of the Investigation Into the Reasonableness of Rates and Charges of PacifiCorp, dba Utah Power & Light Company*, Report and Order (March 4, 1999), 1999 WL 35637961, at *68 (Utah P.S.C. March 4, 1999).

Renewable Task Force recommended that a "net metering program be established in Utah Power's service territory."[5] Pursuant to legislation, the net metering program officially launched in 2002.[6] Over the years, the net metering program has changed to implement legislative amendments to the net metering law, encourage more participation in the program by establishing a higher amount of generating capacity, incorporate a requirement that net metering customers sign interconnection agreements, and change the rate paid for excess energy, among other modifications.[7]

Q. How have these modifications to the net metering program taken place?

A. One of the more significant modifications to the net metering program dealt with a change to the credit to net metering customers for excess energy in Docket No. 08-035-78. In that docket, titled *In the Matter of the Consideration of Changes to Rocky Mountain Power's Schedule No. 135 - Net Metering Service,* parties requested and the Commission approved a change to the credit for excess energy from avoided costs to the kilowatt-hour method, which amounts to a credit at the full retail rate.[8] In the same docket, the Commission approved a modification that established a higher amount of generating capacity from private solar systems from 0.1 percent to 20 percent of the Company's 2007 peak demand.[9] Both modifications were based on perceived barriers to the implementation of the net metering program. While most parties either recommended or did not object to the 20 percent

[5] Docket No. 97-2035-01, Report of the Energy Efficiency and Renewable Task Force, at 36 (Utah P.S.C. December 23, 1999).
[6] L. Utah 2002, Ch. 6.; See *also* Docket No. 02-035-T05, Tariff Approval Letter (Utah P.S.C. June 24, 2002).
[7] *See* Docket Nos. 08-035-78, 08-035-T04, 09-035-T03, 10-035-T04, 10-035-T12, 11-035-T05, 12-035-T09, 13-035-T09, 13-035-T10, and 14-035-T06.
[8] Docket No. 08-035-78, Report and Order, at 13 (Utah P.S.C. February 12, 2009).
[9] *Id.*

cap, the Company proposed a one-percent cap and objected to the 20 percent cap. In its order approving the 20 percent cap, the Commission indicated that, to the extent the Company, "determines it is being adversely affected by net metering ... the Company has the ability to approach the Commission with information on both costs and benefits to address the issue."[10]

Q. Why has the Commission approved modifications to the net metering program in discrete cases?

A. Historically, the net metering program has been treated like the Company's other programs, including its energy efficiency programs, the Utah Solar Incentive Program ("USIP") and, more recently, its newly approved tariff programs and rates for renewable energy options in Schedules 32 and 34. Changes to energy efficiency programs and to USIP have typically also occurred in discrete cases. Similar to its energy efficiency programs and USIP, the Company must file an annual report with the Commission to provide updated information regarding, among other things, the net metering program's participation rates.

Q. How has the net metering program changed from its initial implementation?

A. The significant decrease in cost for private solar generation systems since its initial implementation has undoubtedly been the most important factor in the growth of the program. Graph 1 below shows the significant drop in the prices of solar panels per watt from a high of approximately $100 in the 1970s to $0.61 in 2015.

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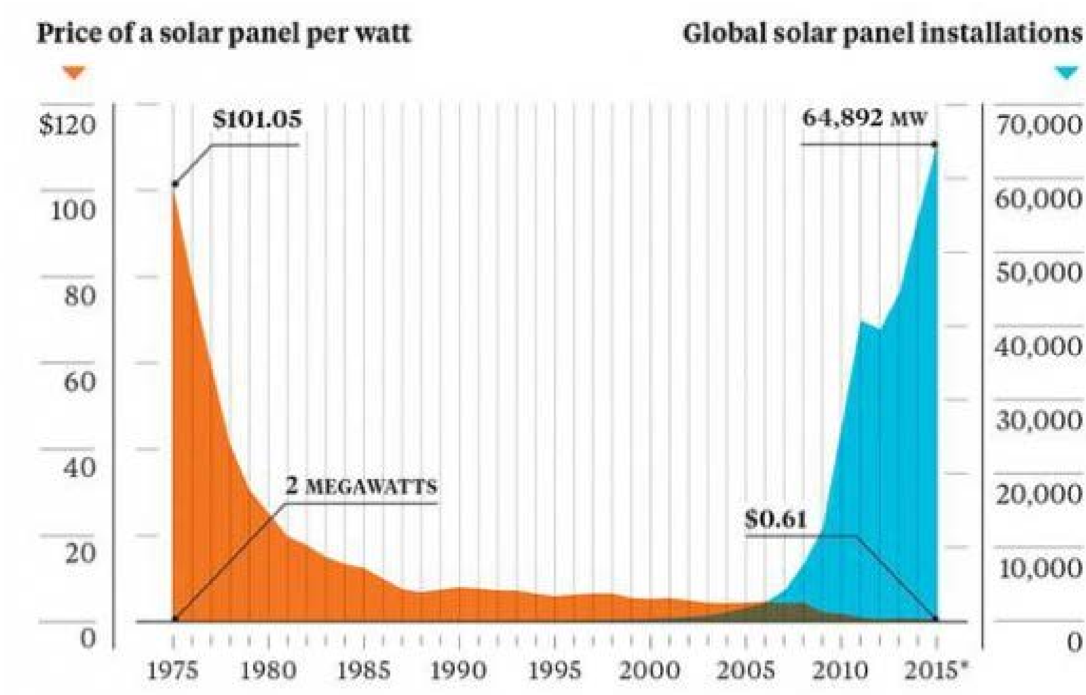
[10] *Id.*

Graph 1. Solar panel prices[11]



However, government subsidies as well as the modifications I describe above have also contributed to the rapid growth in solar installations. The Company's data demonstrates that private solar generation is increasingly popular in Utah in particular, and is projected to grow at a similar pace for the foreseeable future. This growth has highlighted the fact that the current ratemaking structure for the net metering program is not sustainable and harms other customers.

Q. What challenges does private solar generation pose to the Company and its customers?

A. As shown in the testimony and exhibits of Ms. Steward and Mr. Meredith, the results of the Subsection One cost/benefit analysis performed using a comparison of the ACOS and the CFCOS show that the current ratemaking structure shifts costs

[11] https://cleantechnica.com/2014/09/04/solar-panel-cost-trends-10-charts/

to other customers in the amount of $2.0 million annually. If the current ratemaking structure for residential net metering does not change, the Company's data indicates that the cumulative cost shift related to residential net metering will be approximately $670 million over the next 20 years. With no change, this will result in increasing levels of subsidies in favor of net metering customers built into other customers' rates in future rate cases. In between cases, the Company bears the costs resulting from the incremental growth in the number of new net metering customers. This is the type of situation that was contemplated in the Commission's order approving the change to the net metering cumulative generation capacity from one percent to a 20 percent cap of the Company's 2007 peak load. In that order, the Commission provided that the Company could come back to the Commission if the extremely generous cap of 20 percent proved to be harmful, which we now know that it is under the current structure.[12]

Q. What has the Company proposed in the past to address the challenges posed by net metering?

A. In the Company’s 2014 general rate case in Docket No. 13-035-184 (“2014 GRC”), the Company requested approval of a fixed monthly net metering facilities charge for residential net metering customers to cover distribution and certain customer service costs. In a notice issued April 16, 2014, the Commission stated its intent to address the implementation of the Net Metering Statute in the 2014 GRC. The Commission invited the public to submit written comments and also directed intervenors to address the costs and benefits of the net metering program as part of

[12] Docket No. 08-035-78, Report and Order, at 13 (Utah P.S.C. February 12, 2009).

their written testimony on cost of service issues. Several parties filed testimony responding to the Company's proposed charge and provided additional testimony regarding the costs and benefits of the net metering program. All other issues in the case were eventually settled, and the Commission held hearings devoted solely to the net metering issue. Following the hearings, the Commission issued its order in the 2014 GRC. In a two-to-one decision,[13] the Commission declined to approve the proposed net metering charge but, "recognizing the importance of the issues raised by parties in the rate case," established the current docket to examine the costs and benefits of the Company's net metering program.[14] The Commission also decided that it would perform the evaluation in two steps. After establishing the appropriate analytical framework, the Commission indicated it would examine the costs and benefits that result from applying the data to the approved analytical framework, and ultimately make the Subsection Two determination, "in a further phase of this docket, a general rate case or other appropriate proceeding."[15]

Commitment to Renewable Energy

Q. Does the Company have a position on the use of renewable resources?

A. Yes. The Company supports the deployment of cost-effective renewable resources. Currently, the Company's owned generating capability is comprised of approximately 20 percent renewable energy including wind, solar, and

[13]*See* Docket No. 13-035-184, Report and Order, at 78 (Utah P.S.C. August 29, 2014) (dissenting, Chairman (then Commissioner) LeVar, stated, "I believe imposition of the proposed charge represents good public policy, sends proper price signals to homeowners considering an investment in a residential distributed general system, and better ensures viable and stable future growth of the residential net metering program.").
[14]Docket No. 14-035-114, Notices of Comment Period and Scheduling Conference, at 1; WL 6713287 at *1 (Utah P.S.C. November 21, 2014).
[15]Docket No. 14-035-114, Notices of Comment Period and Scheduling Conference (Utah P.S.C. November 21, 2014).

geothermal.[16] The Company's parent, Berkshire Hathaway Energy ("BHE") is the owner of MidAmerican Energy Company and PacifiCorp, which are, respectively, the largest and second largest, rate-regulated utility owners of wind resources in the U.S. according to the American Wind Energy Association. More than 42,000 Utah customers are currently enrolled in the Company's voluntary Blue Sky renewable energy program. In 2015 alone, Blue Sky customers supported 159 million kilowatt-hours of western region wind energy providing benefits equivalent to planting 2.2 million trees. In January 2017, the Company will launch its Subscriber Solar program, which is already approximately 98 percent subscribed.

Q. Does the Company support providing renewable resource service options to customers?

A. Yes. In response to our customers' requests for more renewable resource options, the Company created its Subscriber Solar program. This program provides many advantages including: no upfront costs, no long-term commitments, no installation or financing costs, and appropriate rate design for participating customers. In addition, the Company recently obtained approval of Tariff Schedule 34, the Renewable Energy Tariff. The Company wants to provide its customers with renewable options at reasonably low costs. The Company's Subscriber Solar Program, which is a utility-scale solar project (also referred to as universal solar), meets both criteria. For example, wholesale universal solar can be acquired today for less than $0.04/kWh, whereas retail net metering costs non-participating

[16] All or some of the renewable energy attributes associated with wind, solar and geothermal facilities may be used in future years to comply with renewable portfolio standards or other regulatory requirements or sold to third parties in the form of renewable energy credits or other environmental commodities.

residential customers up to $0.145 kWh. As part of its parent company – BHE – Rocky Mountain Power is a nationwide leader in the development of renewable energy and, as such, supports customers' desire to participate in renewable energy, including net metering programs, so long as those programs do not create adverse impacts to the Company or its customers.

Q. If the Company supports renewable energy and net metering, what is the Company addressing with this filing?

A. Notwithstanding the Company's support for renewable energy, the net metering program must be implemented in a cost-effective manner and consistent with state laws and policies.[17] The Company supports the development of cost-effective renewable energy and customers' desire to participate in renewable energy programs, but it must not be at the expense of other customers or the Company. Customers partially relying on self-generation through the net metering program must pay their fair share of the costs to serve them, including costs associated with electrical infrastructure and reliable energy when the private generation system is not generating sufficient energy. In addition, the structure of the net metering program must send accurate price signals to all customers in order to maximize benefits to the utility's system while, at the same time, protecting other customers from unfair and unexpected cost shifting. More than 820,000 Rocky Mountain Power customers are currently served in Utah with safe, reliable, and efficient

[17] In addition to the mandate in the Net Metering Statute, Utah Code Ann. § 54-17-602 states "*to the extent it is cost effective to do so*, beginning in 2025 the annual retail electric sales in this state … must consist of qualifying electricity or renewable certificates in an amount equal to 20 percent of adjusted gross sales."

electricity. The interests of all of these customers must be considered in designing the net metering rate structure.

Q. Please identify the witnesses supporting the Company's filing and the subject of their testimony.

A. The Company's filing is further supported by Company witness Ms. Steward who testifies about the policy considerations of cost of service and rate design; the unique usage and load characteristics of net metering customers that justify their separation to a different class within the residential class; the Company's transition plan I discussed briefly in my testimony above; and the Company's proposed ratemaking structure, including proposed tariffs and rate design proposals. Company witness Mr. Meredith explains how the ACOS, CFCOS, and the NEM Breakout COS were developed, the results of the comparison of the ACOS and CFCOS, and the results of the Company's NEM Breakout COS relative to how the net metering program impacts various customer classes. He also describes the load research study and the incorporation of that data into the cost of service studies. Company witness Mr. Marx supports the engineering and administration costs that are included in the cost of service studies and explains how the Company accounts for private solar generation facilities in the distribution design criteria and planning. He also explains the potential effects of private solar generation on the Company's grid and distribution system. Finally, Company witness Mr. Michael G. Wilding provides the net power cost benefits attributed to net metering customers.

Q. Please summarize your testimony

A. The Company's ACOS, CFCOS and NEM Breakout COS studies are appropriate, reliable and were prepared consistent with the Commission's November 2015 Order. The results of these studies, as set forth in the testimony and exhibits supporting the Compliance Filing, bear out that the current structure of the net metering program does not accurately account for the actual costs and benefits that net metering customers bring to the Company's system. Rather, those studies show that net metering customers are currently shifting some of their costs to other customers. Further, the NEM Breakout COS study shows that net metering customers have unique characteristics that justify creating a separate residential net metering customer class so that the costs and benefits those customers bring to the system can be clearly identified and properly addressed. Based on the foregoing, the Company asks that the Commission approve the Company's proposals set forth in this Compliance Filing and in the concurrent tariff advice filing which address the current problems with the net metering program and offer needed changes that balance the interests of all customers.

Q. Does this conclude you testimony?

A. Yes.