Rocky Mountain Power
Docket No. 14-035-114
Witness: Robert M. Meredith

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Surrebuttal Testimony of Robert M. Meredith

August 2017

Q. Are you the same Robert M. Meredith who presented direct and rebuttal testimony in this proceeding?

A. Yes I am.

Purpose of Surrebuttal Testimony

Q. What is the purpose of your surrebuttal testimony?

A. In this testimony, I present calculations of the estimated cost shifting that would occur under various proposals presented by other parties. I also respond to the rebuttal testimonies related to the Company's cost of service analyses of Utah Clean Energy ("UCE") witness Tim Woolf, Vote Solar witness Dr. David DeRamus, and Vivint Solar witness Richard Collins. Many of the arguments made in interveners' rebuttal testimonies are similar to those espoused in their direct testimony. Consequently, I did not attempt to respond to every contention concerning the Company's cost of service analyses that were made by interveners in rebuttal testimony. Silence on any argument made by other parties does not imply assent on my part.

Projections of Cost Shifting from Various Proposals

Q. Did you prepare estimates of the level of cost shifting that would occur for different potential futures for the net metering program and the successor program as proposed by different parties?

A. Yes. Exhibit RMP___(RMM-1SR) shows the estimated 19-year present value of revenue requirements ("PVRR") and nominal value of cost shifting for residential net energy metering ("NEM") for several proposals including the following:

(1) the status quo if no changes were made to the NEM program;

(2) the Company's filed case as revised in rebuttal testimony;

(3) the low end and high end of the Joint Proposal by Office of Consumer Services ("OCS") and Division of Public Utilities' ("DPU") presented in their rebuttal testimonies;[1] and

(4) Western Resource Advocates' ("WRA") proposal presented in its rebuttal testimony with a simplifying assumption incorporated.

The 19-year PVRR of cost shifting on Exhibit RMP___(RMM-1SR) are shown to be $291 million, $62 million, $143 million, $178 million, and $195 million for the status quo, the Company's case, the low end of the Joint Proposal, the high end of the Joint Proposal, and WRA's proposal, respectively. In addition, Exhibit RMP___(RMM-1SR) shows estimated cost shifting impacts for some alternative scenarios for context that I will describe later in my testimony.

Q. How did you prepare these estimates?

A. Using the base case of Navigant's private generation forecast that was used for the Company's 2017 Integrated Resource Plan ("IRP"), existing and proposed average offset rates were multiplied by forecast private generation in each year that would be applicable to either existing NEM customers, transition customers, or post-transition customers to calculate annual reductions in revenue. An offset rate sufficient to achieve no cost shifting was then multiplied by private generation and subtracted from the reductions in revenue each year to determine annual cost shifting. For the status quo scenario, an administrative shortfall was added to annual cost shifting by multiplying new forecast residential private generation by the Company's proposed $60 application

[1] DPU witness Dr. Artie Powell DPU, Rebuttal Testimony, Exhibit 1.1R, and OCS witness Michele Beck, rebuttal testimony, Attachment 1 ("Joint Proposal").

fee. To determine the PVRR for each scenario, the net present value of the 19-year stream of annual cost shifting values was calculated using a discount rate of 6.57 percent.[2]

Q. Why was 19 years used?

A. Nineteen years reflects the period of time between 2018, when the different proposals recommend changes to the NEM program, and 2036, which is the last year of the private generation forecast.

Q. What simplifying assumption did you incorporate into the estimated cost shifting from WRA's proposal?

A. In WRA's proposal, it recommended a "soft cap" of 250 megawatts with adjustments made to its proposed nine cent per kilowatt hour export credit rate, either up or down, depending upon the annual adoption levels.[3] Considering potential uncertainty with the year-by-year forecast of private generation, I did not think modeling these changes up or down to the export credit rate would yield meaningful results. For my cost shifting estimate of WRA's proposal, I assumed that the full 250 megawatts of private generation would receive a nine cent export credit rate and all additional megawatts would be on a post-transition rate.

Q. For context, what is the incremental cost shifting that occurs with each one cent per kilowatt-hour change in the export credit price for transition customers?

A. Applying an incremental one cent more per kilowatt-hour for the export credit to the 200 megawatts for the transition program in the Joint Proposal, I calculate an increase

[2] See 2017 IRP, Vol. 1 at p. 150.

[3] WRA witness Steven S. Michel Rebuttal Testimony, ll. 104-9.

in cost shifting to non-NEM customers of about $1 million per year. Over a 12 to 17 year period, I estimate an incremental one cent increase in the export credit rate results in about $15 million to $22 million more cost shifting, respectively, to non-NEM customers.

Q. For additional context, please quantify the estimated cost shifting associated with a transitional export credit at 6.7 cents per kilowatt-hour, which the DPU supported in its direct testimony,[4] as well as the cost shifting that would occur for an export credit that is at about 3.3 cents per kilowatt-hour, which is the Schedule 37 levelized avoided cost price expanded by the secondary line loss factor, at both the low and high ends of grandfathering in the Joint Proposal.

A. Exhibit RMP___(RMM-1SR) shows the estimated 19-year PVRR for these different levels of export crediting to be $115 million, $141 million, $84 million, and $101 million for the low end of grandfathering and transition periods with a 6.7¢/kWh transition export credit, the high end of grandfathering and transition periods with a 6.7¢/kWh transition export credit, the low end of grandfathering and transition period with a 3.3¢/kWh transition export credit, and the high end of grandfathering and transition period with a 3.3¢/kWh transition export credit, respectively.

Q. What do you estimate the incremental impact to cost shifting would be if a five-year period instead of a 10-year period for a transition period at a 6.7¢/kWh export credit were used?

A. Exhibit RMP___(RMM-1SR) shows taking the low end for the 6.7¢/kWh export credit and shortening the term of the transition period to five years would result in an

[4] DPU witness Dr. William Powell Direct Testimony, ll. 528-40.

estimated PVRR of about $101 million, or about a 12 percent decrease in cost shifting.

Rebuttal of UCE witness Tim Woolf

Q. Mr. Woolf claims that the Company developed a CFCOS and an ACOS, but did not present a direct comparison of them and instead added bill credits onto the results of the cost of service studies.[5] Is his assertion correct?

A. Not at all. Exhibit RMP___(RMM-2) in my direct testimony and Exhibit RMP___(RMM-3R) in my rebuttal testimony very clearly present a direct comparison of the results of the CFCOS and ACOS, which includes the impact of bill credits. Exhibit RMP___(RMM-1) in my direct testimony and Exhibit RMP___(RMM-1R) in my rebuttal testimony categorize the differences between both studies into costs and benefits at the system, state, and customer class levels. Bill credits were not added outside the models as Mr. Woolf seems to indicate. Mr. Woolf's statement reflects a misunderstanding of the Company's filing.

Q. Mr. Woolf argues that including bill credits as a cost of net metering is "contrary to the Commission's order that 'The categories of costs in both studies should generally be consistent with those PacifiCorp employs in preparing cost of service studies for ratemaking purposes.'"[6] Are revenues a key component of a cost of service study?

A. Yes. Revenues are a key input into a cost of service study. Bill credits associated with the NEM program which reduce revenue clearly impact the results of a cost of service study, as can be observed on Exhibit RMP___(RMM-2) in my direct testimony and as

[5] UCE witness Tim Woolf Rebuttal Testimony, ll. 58-61.

[6] *Id.* at ll. 62-64.

updated in Exhibit RMP___(RMM-3R) in my rebuttal testimony.

Rebuttal of Vote Solar witness Dr. David DeRamus

Q. Dr. DeRamus asserts that "RMP's approach mistakes a reduction in its revenue for an increase in the cost of service."[7] Was this a mistake?

A. No. As I discussed in my rebuttal testimony[8] and earlier in this testimony, a change in revenue impacts the cost of service result for a class. In other words, if revenue is reduced, either a greater increase or a lesser decrease will be required to bring a customer class to full cost of service.

Q. Do you agree with Dr. DeRamus that the Company's data are "stale" and therefore do not provide "a reliable factual basis on which to draw reasonable conclusions regarding the costs and benefits?"[9]

A. No. The Company's studies are based upon a 2015 calendar year historical period. They are based upon a historical period to avoid any controversy that could exist with a forecast and are the earliest period of time under which the Company had a full year's worth of data for its net metering load research study. The studies are based upon the Company's results of operations filed on April 29, 2016, and the annual cost of service study filed on June 15, 2016. Allowing time to prepare its studies and review, the Company made its filing on November 9, 2016. The current procedural schedule has then brought the filing of this testimony and the hearings into August 2017, less than two years after the completion of the historic test period. Given the complexities of the studies necessary to comply with the framework, adequate time has been needed both

[7] Vote Solar witness David DeRamus Rebuttal Testimony, ll. 69-70.

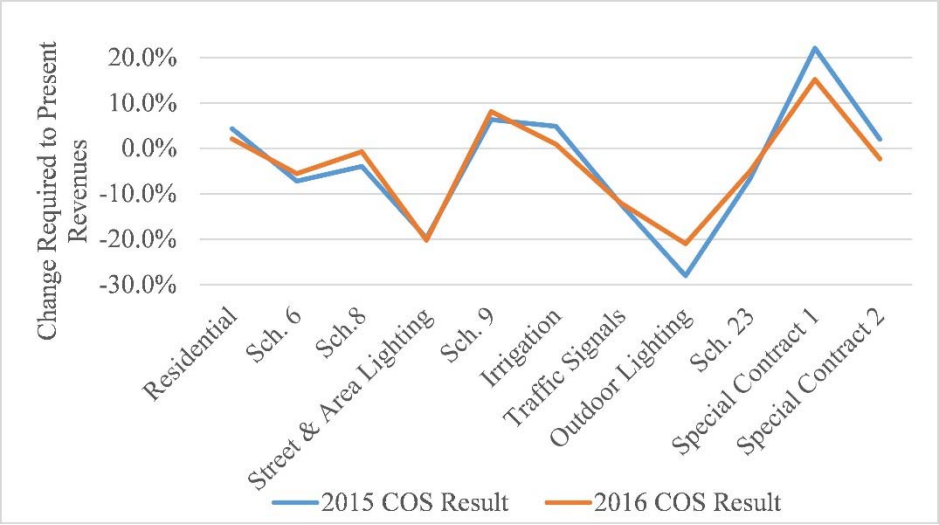
[8] Company witness Robert M. Meredith Rebuttal Testimony, ll. 67-75.

[9] *Id.* at ll. 113-14.

for the Company to prepare its filing and for other parties to review it. With any proceeding that entails technical information or analysis, there is always some lag in the time period for the underlying data and the time at which a Commission can render a decision. The only way to provide a more contemporaneous set of studies would be to require less time for review for all parties.

Further, Dr. DeRamus provides no evidence that a more recent period would alter the finding from the analysis prepared under the Commission's ordered framework that costs exceed benefits for the net metering program or would have a very different magnitude of relative cost shifting for residential NEM. Comparing the results from the 2015 annual cost of service study filing to the 2016 annual cost of service study filing recently made on June 15, 2017, shows that while there were some changes for the different periods, the general pattern of increases or decreases required to bring each class to full cost of service was the same. See Figure 1 below for a comparison of cost of service results between these two periods.

Figure 1. Class Cost of Service Result - 2015 Compared to 2016



Given the very modest differences between classes shown on Figure 1, I doubt that using calendar year 2016 would yield results for the net metering program that would be much different. Like many other parties who have a strong interest in perpetuating the subsidization of the rooftop solar industry that benefits from retail rate remuneration, Dr. DeRamus would like to claim any reason to delay, postpone, or otherwise put off a determination of costs and benefits for the NEM program.

Q. Does Dr. DeRamus have any basis for his statement that the Company's "conclusions regarding the costs and benefits to serve residential NEM customers are based on unsupported conjecture, not reasoned analysis and reliable data?"[10]

A. No. The Company's analyses comply with the November 2015 Order, are based upon a substantial body of evidence, and employ methods that have been relied upon historically for setting the Company's retail rates, which have been found to be just and reasonable. Dr. DeRamus provides no evidence that the Company's calculation of costs and benefits is unsupported conjecture. His arguments presented in both his direct and rebuttal testimonies do not demonstrate a lack of support for the Company's analyses, but rather present his views for why the Commission's framework is not his preferred approach.

[10] *Id.* at ll. 125-26.

Q. Dr. DeRamus concludes that the evidence for the Company's finding that the costs of the NEM program exceed its benefits is insufficient, "particularly given the current low level of residential DSG penetration."[11] Would the overall magnitude of the NEM program influence a finding of costs and benefits under the framework ordered by the Commission in its November 2015 Order?

A. No. I am not sure why Dr. DeRamus would claim that the finding of costs exceeding the benefits would be impacted by a lower level of penetration. While a smaller number of residential NEM customers would create less overall cost shifting, I think that the general level of cost shifting for each additional unit (customer, megawatt, or megawatt hour) of residential NEM that interconnects would be similar under the framework afforded by the November 2015 Order irrespective of magnitude.

Rebuttal of Vivint Solar witness Richard Collins

Q. Mr. Collins references a PVRR benefit of about $400 million for higher penetrations of distributed generation from the Company's 2017 IRP over 20 years.[12] Does this prove that the net metering program provides net benefits?

A. No. As I discussed in my rebuttal testimony, the IRP sensitivity cases only measure future benefits associated with rooftop solar and do not include incremental costs such as bill credits.[13]

Q. Please provide some context for the $400 million benefit that Mr. Collins references.

A. The 20-year PVRR that Mr. Collins references is actually less than the benefits afforded

[11] *Id.* at ll. 354-58.

[12] Vivint Solar witness Richard Collins Rebuttal Testimony, ll. 46-50.

[13] Company witness Robert M. Meredith Rebuttal Testimony, ll. 345-47.

to net metering through the cost of service-based framework ordered by the Commission in its November 2016 Order. Using some of the same assumptions I presented earlier in this testimony to project cost shifting and a benefit value of $67.14[14] per megawatt hour developed from Exhibit RMP___(RMM-2R) in my rebuttal testimony, I calculate that the 20-year PVRR of total benefits excluding costs for residential NEM would be about $459 million.

Q. Mr. Collins argues that the Commission made a "grave error" in the November 2015 Order which included a one year test period, since "(i)f one is required to look at only one year's worth of costs and benefits, no dam would ever get built; there would be no long-term investments made by businesses or anyone for that matter." Please comment.[15]

A. I think that Mr. Collins's argument is misleading. He seems to imply that the benefits included under the framework that the Commission required in the November 2015 Order are limited only to short-term costs. As I have indicated in my rebuttal testimony,[16] the Company's analyses consider lower allocations of facilities which have long lives as a benefit of the NEM program. Further, retail rates themselves are determined based upon a one-year test period and individuals and businesses make significant long-term investments in energy efficiency in response to them.

[14] On page 3 of Exhibit RMP___(RMM-2R), $67.14 can be calculated by taking $1,900,000 total benefit for residential divided by 28,304 megawatt hours of private generation.

[15] Vivint Solar witness Richard Collins Rebuttal Testimony, ll. 87-91.

[16] Company witness Robert M. Meredith Rebuttal Testimony, ll. 86-88.

Q. Mr. Collins makes some recommendations for a future load study including having "at least one observation per usage strata for each county," "multiple years of data," and weather normalization.[17] Please comment.

A. While the Company is open to and may agree to implement some reasonable level of additional load research data to achieve even more accurate results for a potential future proceeding or phase of this proceeding, his suggestions would be best addressed as part of a work group or collaborative in that future potential proceeding or phase of this proceeding. In his rebuttal testimony, Mr. Collins provides no support for why multiple years, weather normalization, and data for all counties are necessary.

Q. Does this conclude your surrebuttal testimony?

A. Yes.

[17] *Id.* at ll. 533-37.