BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN POWER TO CLOSE THE NET METERING PROGRAM TO NEW SERVICE & IMPLEMENT A NET BILLING PROGRAM TO COMPENSATE CUSTOMER GENERATORS FOR EXPORTED GENERATION	)	**CASE NO. PAC-E-19-08** **DIRECT TESTIMONY OF ROBERT M. MEREDITH**

ROCKY MOUNTAIN POWER

CASE NO. PAC-E-19-08

June 2019

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

A. My name is Robert M. Meredith. My business address is 825 NE Multnomah Street, Suite 2000, Portland, Oregon 97232. My present position is Director, Pricing and Cost of Service.

Qualifications

Q. Briefly describe your educational and professional background.

A. I graduated from Oregon State University in 2004 with a Bachelor of Science degree in Business Administration and a minor in Economics. In addition to my formal education, I have attended various industry-related seminars. I have worked for the Company for 14 years in various roles of increasing responsibility in the Customer Service, Regulation, and Integrated Resource Planning departments. I have over nine years of experience preparing cost of service and pricing related analyses for all of the six states that PacifiCorp serves.

Q. Have you testified in previous regulatory proceedings?

A. Yes. I have previously filed testimony on behalf of the Company in regulatory proceedings in Idaho, Utah, Wyoming, Oregon, Washington, and California.

Q. What is the purpose of your testimony in this proceeding?

A. My testimony supports the Company's application requesting to (i) create separate customer classes comprised of residential and Schedule 23 customer generators; (ii) close the net metering program ("Net Metering program") and corresponding tariff to new service – Schedule 135; and (iii) create a new different, successor program for customer generators and corresponding tariff, Schedule 136 – Net Billing program, to

replace the Net Metering program. I provide justification for the Company's request based on the results of the class cost of service study the Company performed.

Q. How is your testimony organized?

A. First, I present the results of the class cost of service study that shows customer generators participating in the Net Metering program on their own separate classes. My testimony then discusses why residential and Schedule 23 customer generators should be on separate customer classes. My testimony presents the Company's proposed new Schedule 136, Net Billing Service, a different, successor program to Schedule 135, Net Metering Service, for customer generators. Finally, my testimony explains an alternative transition plan to move compensation for exported energy to a cost-based level over three years, if the Commission decides that existing customer generators may not be treated differently than new customer generators.

Cost of Service Study

Q. Please describe the cost of service study the Company performed for this filing.

A. To better understand the relationship between the revenue provided from customers who participate in the Net Metering program and their cost of service, the Company prepared a class cost of service study where net metering customers were segregated from the class in which they presently participate ("NEM COS Study"). The NEM COS study, which is based upon the December 2017 Results of Operation report, includes classes for residential net metering, Schedule 23 net metering, and Schedule 6 net metering, along with the other customer classes the Company has traditionally included.

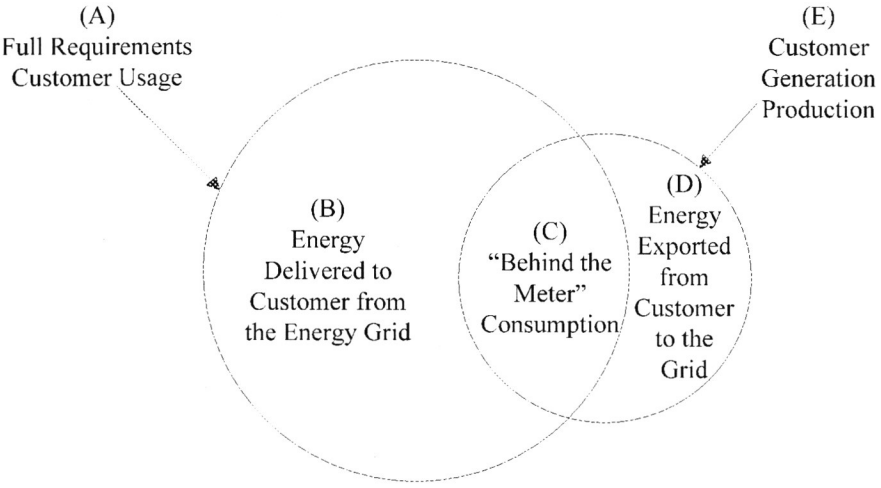
Q. How did the Company prepare the NEM COS Study?

A. Separate classes were created for the residential, Schedule 23, and Schedule 6 net metering customers ("NEM classes"). For these different NEM classes, the characteristics of their cost of service were identified, removed from the overall class from which they were separated, and applied to the NEM classes. The characteristics for the NEM classes include different customer counts, revenues, energy values, system coincident peak demand values, distribution coincident peak demand values, non-coincident peak demand values, number of customers per transformer, and metering costs.

Q. How were loads determined for the separate net metering classes?

A. To determine loads for the separate net metering classes, it was first necessary to estimate full requirements usage. Figure 1 illustrates how full requirements usage is determined for net metering customers.

Figure 1. Illustration of How Full Requirements Usage Can Be Determined



(B) and (D) are known

(E) can be estimated

(A) Full Requirements Usage = (B) + [(E) - (D)]

The bills for net metering customers are based upon the energy delivered to them from the energy grid, net of the energy exported from their customer generation system to the grid. Both of these values, which are represented by (B) and (D) in Figure 1, are measured by a bi-directional meter. Customer generation production, represented as (E) in Figure 1, is calculated by multiplying estimated solar generation from National Renewable Energy Laboratory's ("NREL") online PVWatts® calculator[1] by the nameplate capacity of each customer's generation system. For wind based customer generation systems, a sample of net metering wind customers was relied upon to calculate production (E). To develop full requirements energy usage, shown as (A) in Figure 1, the difference between (E) and (D) is added to (B).

To derive profiles for the net metering classes, the full requirements energy for each customer by month was shaped to the monthly standard class profile. Each customer's estimated customer generation production profile based upon individual system sizes was then superimposed on top of estimated full requirements profiles to estimate delivered and exported energy on an hourly basis.

The determination of system coincident peaks and distribution coincident peaks were based upon energy deliveries to the customer. Non-coincident peak was estimated by scaling the non-coincident peak for the overall class by the proportion of full requirements energy for net metering customers to the overall energy for all customers.

[1] The Company used the default assumptions in PVWatts for a 1 kW system at the Idaho Falls, Idaho location.

Q. What other important changes were necessary to separately break out the NEM classes in the NEM COS Study?

A. To develop the Company's proposed Schedule 136 application fee that I describe in more detail later in my testimony, the Company identified engineering, administration, and customer service/billing related costs that are directly attributable to interconnecting net metering customers. These costs which are shown on Exhibit No. 2 were directly assigned to the different NEM classes.

Also, NEM classes were allocated energy-related costs for the energy that is delivered to them and receive credit to their cost of service for the excess generation that they deliver to the Company.

Q. Why does the Company allocate to net metering customers energy-related costs based upon their delivered energy instead of their net energy?

A. Net metering customers use the system in a way that is fundamentally different than other customers. Unlike other customers who consume only energy that is delivered to them from the energy grid, net metering customers may at different times be receiving energy from the energy grid, consuming their own generation onsite, or exporting the excess energy from their generation to the energy grid. Like with any other customer, the Company allocates its costs based upon the volumes of energy and the magnitude of demands the Company delivers to net metering customers. Inasmuch as net metering customers consume their own generation onsite, the profile and overall quantity of energy delivered to them is reduced and the allocation of costs is also consequently reduced. The concept of net energy is a billing construct that is used for net metering. Net energy does not reflect a net metering customer's physical time-based relationship

with the energy grid. Even though a net metering customer may produce as much total energy as that customer consumes over a period of time, in real time that customer still relies upon the energy grid to both import and export energy. The NEM COS Study appropriately assigns costs to net metering customers based upon their usage of the Company's system.

Q. Please describe how net metering customers receive credit for energy they export to the grid in the NEM COS Study.

A. For the energy that net metering customers export to the energy grid from their customer generation systems, a credit is assigned to them based upon the $24.86 per megawatt hour export credit value supported in Company witness Mr. Daniel J. MacNeil's testimony. Exhibit No. 3 includes the calculation of export energy credits for each NEM class. In total, the value of the energy credits for all NEM classes is $29,588.

Q. Please describe how the Company applies export energy credits to the cost of service of the NEM classes.

A. The Company directly assigns export credits to each NEM class. It allocates an offsetting cost for the export credits to all classes based upon Factor 30 – Energy. Both the export credits and the offsetting costs are functionalized to the Production function.

Q. Why is there an offsetting cost for the export credits?

A. To balance out the credits directly assigned to net metering customers in the cost of service model, it was necessary to include a cost that offsets that credit. The export credits in the NEM COS Study reflect a fair value of the energy that net metering customers export to the energy grid for other customers to use. All customers, including

net metering customers, benefit from this excess generation in the form of reduced net power costs. It is reasonable that all customers receive an increased allocation of cost proportional to that benefit to offset the value assigned to the NEM classes for their exported energy. With this treatment of exported energy, customers are economically indifferent between whether they receive a kilowatt hour from a customer generation system or from some other source.

Q. Why does the Company allocate the offsetting cost for the export credits on the basis of energy?

A. As shown in Mr. MacNeil's testimony, the primary component in his export credit value analysis is an energy-related benefit.

Q. Why does the Company allocate the offsetting cost for export credits to NEM classes as well as to the other non-net metering classes?

A. Customer generation that is exported to the grid may be consumed by both customers who do not participate in net metering as well as those who do. Also, net power costs in total are reduced as a result of exported customer generation. It is reasonable to assign some of the offsetting cost of exported energy to net metering customers in proportion to the energy that is delivered to them.

Q. What were the results of the NEM COS Study?

A. Exhibit No. 4 and Table 1 below show the results of the NEM COS Study:

Table 1. NEM COS Study Results

Class	Annual Revenue $000	Total Cost of Service $000	Increase / (Decrease) to = ROR $000	Percentage Change from Current Revenues
Residential	54,542	51,479	(3,063)	-5.62%
Residential - TOD	19,941	20,095	153	0.77%
Total Residential	74,483	71,573	(2,910)	-3.91%
Residential - NEM	270	363	94	34.81%
Schedule 6/35	28,870	29,599	730	2.53%
Schedule 6 - NEM	156	152	(3)	-2.21%
Schedule 23	19,599	17,942	(1,657)	-8.46%
Schedule 23 - NEM	88	103	14	16.18%
Other Classes	155,000	158,733	3,733	2.41%
Idaho Total	278,465	278,465	-	0.00%

Table 1 shows that both non-net metering residential classes require a total 3.9 percent rate reduction to achieve an equal rate of return. In contrast, residential net metering requires a 34.8 percent increase. The study shows that the present under-collection of revenue relative to cost of service from residential net metering is about $378 per customer per year.[2]

Table 1 also shows that Schedule 23 net metering requires a 16.2 percent increase. This represents an under-collection of about $651 per customer per year.[3] The results for the Schedule 6 net metering class show a smaller difference with other customers on Schedule 6.

The results for residential and Schedule 23 net metering reflect the ability of these customers to avoid paying their full cost of service by receiving compensation for each kWh generated at the full retail energy rate. Within the rate design for

[2] The $378 per customer value for residential net metering under-collection is calculated by dividing the $93,825 increase that the NEM COS Study indicates would be required for the residential net metering class by the 248 residential net metering customers included in the NEM COS Study test period.
[3] The $651 per customer value for Schedule 23 net metering under-collection is calculated by dividing the $14,314 increase that the NEM COS Study indicates would be required for the Schedule 23 net metering class by the 22 Schedule 23 net metering customers included in the NEM COS Study test period.

residential and Schedule 23 customers, costs that are fixed which are related to demand at the time of the Company's different peak periods are largely recovered through volumetric energy charges. When net metering customers receive credits equal to the full retail energy rates, but do not fully offset their peak demands, there is a potential for costs to be shifted to non-participating customers.

Separate Class Treatment for Residential and Schedule 23 Customer Generators

Q. Why should the Commission separate residential and Schedule 23 customer generators into a different class from other residential and Schedule 23 customers for ratemaking purposes?

A. The Commission should order separate class treatment for residential and Schedule 23 customer generators for two reasons. First, residential and Schedule 23 customer generators exhibit characteristics of service which are different from other classes. Second, the NEM COS Study shows that when residential and Schedule 23 net metering customers are in their own classes, their current levels of revenue are well below cost of service indicating that they are shifting costs to other customers.

Q. Why are residential and Schedule 23 net metering customers different than other customer classes?

A. The profile of energy delivered to residential and Schedule 23 net metering customers varies significantly from the overall profiles for all other residential and Schedule 23 customers. Figures 2 and 3 below compare average profiles during the Company's peak month of July for residential and Schedule 23 customers respectively.

Figure 2. Average Hourly Profile in July 2017 for Residential and Residential Net Metering Customers

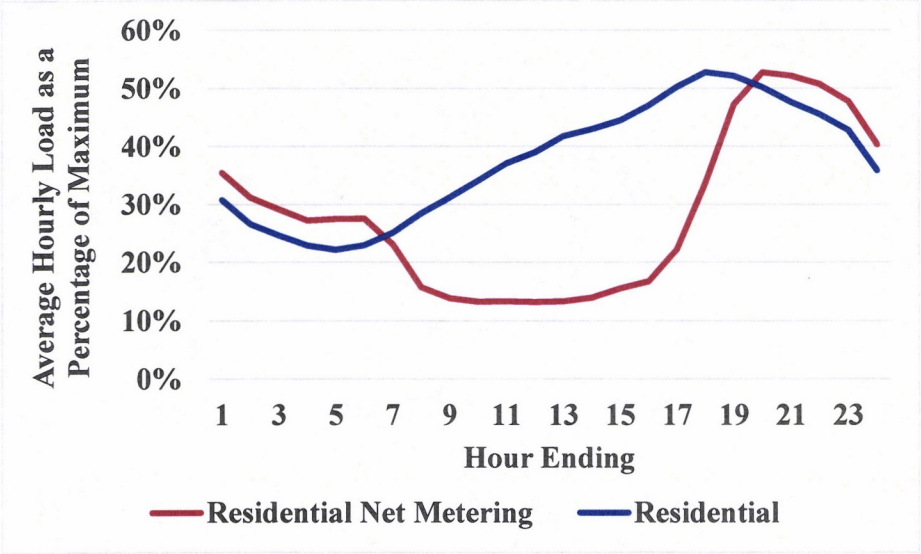
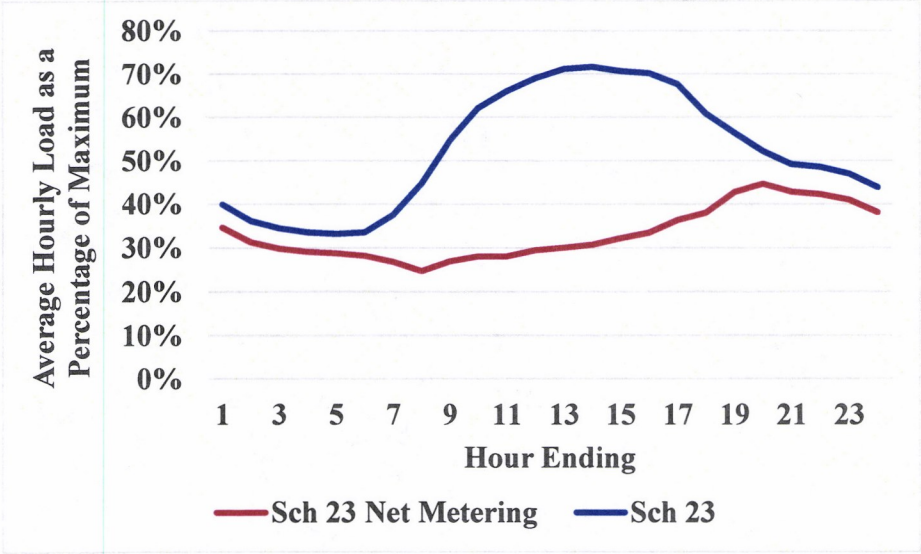


Figure 3. Average Hourly Profile in July 2017 for Schedule 23 and Schedule 23 Net Metering Customers



Figures 2 and 3 both show that the peak time for net metering customers is different than the peak time for the entire class. Both figures also show that energy delivered to net metering customers is significantly less in the middle of the day than it is for the entire class.

The relationship between net metering customers and the grid is also fundamentally different than it is for other customers who do not have customer generation. Unlike most customers who only receive energy from the grid, customer generators both receive energy from and export energy to the grid. This unique two-way relationship on its own justifies separate class treatment.

Q. Why is the Company not requesting separate class treatment for Schedule 6 customer generators?

A. Separate class treatment for Schedule 6 is unnecessary for two reasons. First, the rate structure for Schedule 6 includes demand, energy, and customer charges, while residential and Schedule 23 include only energy and customer charges. Consequently, rates for Schedule 6 recover far less fixed costs through volumetric energy charges than rates for residential and Schedule 23 customers do. Second, Schedule 6 customer generation is very small. As of May 1, 2019, the Company had only four Schedule 6 net metering customers with customer generation that have overall installed nameplate capacity of 42 kW^{DC}. Table 2 below shows how customer generation compares to full requirement usage for each of the net metering classes.

Table 2.
Comparison of Customer Generation to Full Requirements Usage in 2017

Class	Energy Delivered (MWh)	Energy Exported (MWh)	Est. Energy Generated (MWh)	Full Requirements Usage (MWh)	Generation as a % of Full Requirements Usage
Residential NEM	3,510	905	1,855	4,460	41.6%
Schedule 23 NEM	1,245	280	536	1,501	35.7%
Schedule 6 NEM	1,936	6	15	1,946	0.8%

While residential and Schedule 23 net metering customers each have customer generation that is close to 40 percent of full requirements usage, customer generation

for Schedule 6 net metering customers is less than one percent of full requirements usage. In other words, the presence of customer generation systems is not a very significant driver of the billing and service characteristics for these customers.

The less volumetric intensive rate structure for Schedule 6 and relatively small size of customer generation produces a cost of service for this class that is relatively close to the revenue that they provide, as shown on Table 1.

Q. What are some of the other practical benefits of separate class treatment for residential and Schedule 23 customer generators?

A. Including residential and Schedule 23 customer generators in their own separate classes will allow these two groups to be tracked in various ratemaking proceedings over time. While the Company believes that the tariff changes I recommend later in my testimony will mitigate cost shifting, having separate cost of service classes increases transparency and helps the Company, the Commission, and interested parties track cost shifting as the characteristics of this population continues to evolve over time.

Proposal for Existing Schedule 135 Customers

Q. What does the Company propose for existing customer generators on the Schedule 135 Net Metering program?

A. The Company proposes that existing customer generators remain on the Net Metering program, taking service under Schedule 135 until June 1, 2029, roughly a 10 year period from the date of this filing. The new Net Billing program under proposed Schedule 136 is a new separate service offering to new customers, different from the existing Net Metering program. Therefore, having different program-related compensation mechanisms for exported energy for existing Net Metering customer

generators and new customer generators for a limited period of time is reasonable and appropriate. Although the proposed Net Billing program would better reflect costs and benefits for existing customer generators, the Company recognizes that these customers have made investments based on the current Net Metering program structure. A ten year period for which existing customer generators may stay on the Net Metering program is reasonable and is consistent with the customer payback analysis that I describe later in my testimony. The generator site itself would remain under the Net Metering program so customers would be able to retain the value if they sell the property in the future.

Q. When does the Company propose to close the current Net Metering program to new service and begin offering new customers the alternative Net Billing program?

A. The Company requests the Net Metering program be closed to service for any interconnection applications received after December 31, 2019. Customers who submit their application before the cutoff would have one calendar year to interconnect in order to be eligible for the Net Metering program. For one month after the cutoff date, the Company would not accept customer generation applications so that it could make system changes necessary to process application fees. Therefore the Company proposes a February 1, 2020 effective date for its proposed Schedule 136 tariff. New prospective customer generators who submit interconnection applications at that time would participate in the Net Billing program. Exhibit No. 5 includes proposed revisions to Schedule 135, which closes it to new applications after December 31, 2019 and sets an end date to Net Metering service of May 31, 2029.

Proposed Schedule 136

Q. Please describe the Company's proposed new Schedule 136, Net Billing Service tariff.

A. The Company's proposed Net Billing program is set forth in tariff Schedule 136, Net Billing Service, provided as Exhibit No. 5. The new program would provide export credits to customer generators for all energy exported to the grid from their generation system. At the same time, all energy usage provided by the Company to the customer would be billed under the standard applicable tariff. Energy generated and consumed on-site would serve to offset kilowatt-hours that would otherwise have been imported from the Company to the customer.

Q. Why is the Company proposing these changes?

A. The Company's cost of service analysis described earlier in my testimony shows that each additional customer generator who participates in the Net Metering program shifts a significant level of cost onto other customers. The proposed Net Billing program would help to correct the cross-subsidy that customers with customer generation impose upon customers who do not have customer generation. Under the Company's proposed tariff, the customer pays cost-based rates for energy taken from the Company and receives compensation for energy the customer generates and exports to the system that fairly and accurately reflects the value of that exported energy.

Q. What is the proposed export credit rate for exported energy?

A. As described by Mr. MacNeil, the overall value for exported energy is 2.486 cents per kilowatt-hour for the 12 month period ending May 2020.[4] The Company proposes that

[4] Direct Testimony of Daniel J. MacNeil, Exhibit No. 1.

this value be billed as an export credit rate to be applied to energy based upon the season and time at which it is exported. For the summer season of June through September, an export credit of 3.926 cents per kilowatt-hour would apply to energy exported during the on-peak hours of 4:00 p.m. to 10:00 p.m. on weekdays excluding holidays and an off-peak export credit of 2.183 cents per kilowatt-hour would apply to energy exported during all other hours in the summer season. For the winter season of October through May, an export credit of 3.113 cents per kilowatt-hour would apply to energy exported during the same on-peak hours as the summer season and an off-peak export credit of 2.356 cents per kilowatt-hour would apply to energy exported during all other hours in the winter season.

Q. Will the Company credit or charge customers for kilowatt-hours which are generated by the customer and consumed on-site?

A. No. Kilowatt-hours generated and consumed on-site will lower the customer generator's imported energy needs from the Company, thereby lowering their electric bill. There will be no other charge or credit for these kilowatt-hours under the proposed Net Billing program.

Q. Under what interval will energy exported to the grid and energy delivered from the Company be netted against each other?

A. Energy exported to the grid and energy delivered from the Company would not be netted against each other over an interval period. Customers' billings would be based upon all energy exported and all energy delivered. This measurement would be real-time or instantaneous and would not rely upon a specific interval period such as a 15 minute or hourly interval.

Q. Why does the Company propose that exported energy credit prices be differentiated by time of export?

A. As discussed in Mr. MacNeil's testimony, differentiating the price of exported energy sends an appropriate price signal for customer generators. Valuing exported energy at different time-varying prices encourages customer generators to build and operate their systems in ways that are the most beneficial to the power grid.

Q. What is the basis for the Company's proposed on-peak period of 4:00 p.m. to 10:00 p.m.?

A. As discussed by Mr. MacNeil in his direct testimony,[5] the proposed on-peak definition of 4:00 p.m. to 10:00 p.m., Monday through Friday excluding holidays, provides a strong differential between the prices for the on- and off-peak periods. Offering higher prices fairly compensates customers who export more energy during these times.

Q. How often would export credit values be updated on proposed Schedule 136?

A. The Company proposes that export credit rates would be updated annually. Consistent with the timing of the Company's annual Surrogate Avoided Resource ("SAR") update for avoided cost prices, the Company would make an advice filing annually, around mid-April with updated prices going into effect June 1.

Q. Why is it appropriate for the export credit values to be updated annually instead of providing multi-year, long-term pricing?

A. As discussed in Mr. MacNeil's testimony, updating the export credit values annually ensures that new customer generators would receive accurate, up-to-date pricing for their exported energy. If the value rises year-over-year, customer generators would

[5] Direct Testimony of Daniel J. MacNeil at 7-11.

receive this higher value. Conversely, if the value declines, other non-participating customers are protected from paying too much for that excess generation. Routine updates of the value would help to ensure that the Net Billing program is fair for all customers.

Q. Under the Company's proposed Net Billing program, will export credits ever expire?

A. Yes. The purpose for the Company's proposed Net Billing program is for customers to offset some or all of their energy bill with onsite generation, not for a customer to become a power producer. Customers who wish to be a power producer should go through the applicable process to become a qualifying facility. To encourage customers not to oversize their generation systems, the Company proposes that export credits may be rolled over until March of each year for most customers and until October for irrigation customers.

Q. Will customers be able to offset their entire monthly bill with export credits?

A. Not entirely. The Company proposes that customers have the ability to offset energy and power charges with export credits on their monthly bills. However, the customer service charge will still be required to recover fixed costs that are not avoidable with customer generation.

Q. If the Company is not requesting separate class treatment for Schedule 6 customer generators, why is it still proposing that all customer generators going forward be subject to Schedule 136 – Net Billing Service?

A. The value of exported energy from customer generators is not equal to retail energy charges. Mr. MacNeil's testimony shows that the value of exported energy is 2.486

cents per kilowatt-hour. In comparison, the average energy charges for residential, Schedule 6, and Schedule 23 are 9.963, 3.988, and 8.841 cents per kilowatt-hour, respectively. Providing all new customer generators going forward with credits for their exported energy at a price that reflects their fair value instead of a net energy credit that is priced at retail energy charges which include recovery of fixed costs that are not avoidable with customer generation is just, reasonable, in the public interest, and ensures that, over time, customer generators are paid appropriately for the value that they provide.

Customer Impacts

Q. Will the Company's proposed Net Billing program have an impact on existing customer generators?

A. Not immediately. As described above, customers on the current Net Metering program would remain on the program and face no immediate impact as a result of the proposed new program and tariff.

Q. How will participating in the Net Billing program impact the electric bill of participants compared to the bill they would have paid under standard tariff before installing their own generation?

A. A Net Billing program participant will see their bill impacted in two ways compared to the bill they paid before installing their own generation. First, on-site consumption will serve to lower their overall monthly energy imported from the Company and thereby lower their monthly electric bill. The second impact to the participant's bill is the exported energy credit which will serve to further lower the net monthly bill.

Q. Taking into account the benefit of both the lower quantity of energy imported and the exported energy credit, what is the estimated overall compensation for each generated kilowatt-hour for the typical residential customer generator?

A. The Company estimates the total compensation for generated energy for the typical residential customer generator is 8.5 cents per kilowatt-hour under its proposed Net Billing program.

Q. How does this compensation level compare to the compensation per generated kilowatt-hour under the current Net Metering program?

A. The Company estimates the compensation for generated energy for the typical residential customer generator under the current Net Metering program is 12.5 cents per kilowatt-hour.

Q. Have you prepared an exhibit showing the calculation of these estimates?

A. Yes. The estimated calculations are shown in Exhibit No. 6.

Q. With these estimates, what impact could the Company's proposed changes have on the economics for a residential customer considering customer generation?

A. Under the Net Metering program, the Company estimates a typical residential customer generator could have a simple payback period of just over 9.6 years. Under the proposed Net Billing program, the Company estimates the same system could have a simple payback period of about 14.4 years. Exhibit No. 7 includes the calculations and assumptions that the Company used to estimate system payback rates.

Proposed Application Fee

Q. Please explain the Company's proposed application fee for customers seeking service on Schedule 136.

A. The Company proposes a onetime non-refundable fee of $85 to be submitted with the customer application. This fee reflects the administrative cost associated with processing and approving applications for interconnection.

Q. How was this application fee calculated?

A. Exhibit No. 2 sets forth how the Company calculated the fee. The Company reviewed actual costs incurred to process applications for customer generation interconnections in 2017. These costs include administrative review and processing, engineering reviews and handling customer service requests. The Company's overall cost to process customer generator applications for Idaho was $12,169. Dividing this overall cost by 143 applications that were received in Idaho in 2017 yields a cost of approximately $85 per application.

Q. Why is an application fee the appropriate mechanism to recover these costs?

A. The cost of processing customer generator interconnection applications is driven by the volume of those applications and it is therefore appropriate and sensible for the costs to be recovered from the customers who cause the costs, at the time those costs are incurred. An application fee can also limit the number of unnecessary applications, thereby lowering the costs associated with their processing and approval. For example, a customer or installer may submit an application even if the customer is not very serious about installing a customer generation system, because he or she faces no cost to apply. The Company would still incur costs related to that application even if no

customer generation system is ever installed. Charging a small application fee may screen those customers from the process who are not serious about installing a new customer generation system.

Q. How does the Company's proposed application fee compare to application fees for other utilities in Idaho?

A. The Company's proposed application fee is less than the application fees charged by other investor owned utilities in Idaho, as shown in Table 3 below:

Table 3.
Comparison of Customer Generation Application Fees

Utility	Application Fee
Rocky Mountain Power (Proposed)	**$85.00**
Idaho Power	$100.00
Avista	$100.00

Cost of Service under Net Billing Program

Q. Please quantify how the cross subsidy would have been reduced if net metering customers would have been on the Company's proposed Net Billing program.

A. Exhibit No. 8 shows how cost of service for the NEM Classes would change if those customers had been on the Company's proposed Schedule 136. This would have included both an increase in revenues from export credits whose price is lower than retail energy rates and increased revenue from interconnection application fees. Exhibit No. 8 shows that residential customer generators would have moved from needing a $93,825 increase to needing a $10,637 increase or about an 89 percent reduction in the subsidy that residential customer generators impose upon other customers. Exhibit No. 8 also shows all NEM Classes would be within a reasonable range of their cost of

service with no one of the NEM classes more than four percent away from their cost of service.

Alternative Transition Plan

Q. If the Commission declines to allow existing customer generators to remain on the Net Metering program, what is the Company's recommendation?

A. If the Commission makes this determination, the Company recommends that all residential customer generators be subject to a Net Billing program whose export credit price transitions over a three-year period from average retail energy charges to the cost-based level that Mr. MacNeil supports in his direct testimony ("Alternative Transition Plan").

Q. Why is a three year transition period appropriate, if a higher export price results in cost shifting to other customers?

A. For the typical residential customer on the Net Metering program, moving to the Company's proposed Net Billing program would result in a monthly bill increase of $27.70 or about 32 percent. While fairness and economic efficiency are desired goals for the Net Billing program, gradualism and avoiding having existing customer generators experience large bills increases are also important. The Alternative Transition Plan strikes a reasonable balance between these different objectives and spreads the impact of higher bills for existing customer generators out over time.

Q. Please describe the timing, rates, and typical bill impacts of the Alternative Transition Plan.

A. Exhibit No. 9 shows the timing, rates, and typical bill impacts of the Company's Alternative Transition Plan. Beginning February 1, 2020, existing customer generators

currently on the Net Metering program and new customer generators would be subject to the Net Billing program and would be credited for exported energy. The initial rate for exported energy would be set equal to average base energy charges. The price for energy exported during the summer months of May through October would be 11.2683 cents per kilowatt-hour and the price for the winter months of November through April would be 8.9055 cents per kilowatt-hour. Under the existing Net Metering program, customer generators receive a kilowatt-hour credit within the month for exported energy. For residential customer generators on Schedule 1, the value of this credit is higher as a result of the residential inverted tier block rate design which prices greater monthly usage at a higher rate. Consequently, the initial change to exported energy being credited at average energy charges would result in a $3.66 average monthly bill increase for the typical residential customer generator.

After customer generators move to the Net Billing program, the export credit would transition each June 1 for the next three years in conjunction with the proposed annual export credit update that would coincide with the SAR update. On June 1, 2021, the export credits would move one third of the way from average energy charges to the cost-based export level. This change would result in an $8.14 estimated[6] monthly bill increase for the typical customer generator. On June 1, 2022, the export credits would move two thirds of the way from average energy charges to the cost-based export level. At this time, export credits would also be differentiated by time period. Export credits would not be time varying before the June 1, 2022 transition, because this would necessitate changing out meters for existing customer generators before the Company's

[6] The annual export credit update in June would result in export credit prices that are based upon the most recent information at that time each year.

expectations for deploying advanced metering infrastructure ("AMI"). The seasonal definitions of summer and winter would also change from the summer definition of May through October, currently in rates, to June through September, which better prioritizes the higher value third quarter peak period. The final transition would move export credits all the way to a cost-based level on June 1, 2023.

Q. Under the Alternative Transition Plan, would export credits transition for non-residential customer generators?

A. The Company recommends that the same transition timing and export credit transition logic be applied to Schedule 23 customer generators who would also face potential large bill increases from moving to the Net Billing program. The Company recommends that there be no transition for Schedule 6 customer generators and any other schedule that may interconnect customer generation in the future. Existing Schedule 6 customer generators would be subject to the Net Billing program effective February 1, 2020 and would be credited for their exported energy at the Company's proposed cost-based prices. Table 4 below shows that Schedule 6 customer generators' exported energy is far less prominent than customer generators on other schedules and that their energy charges are also closer to the value of exported energy.

Table 4. Significance of Exported Energy for Customer Generators and Average Energy Charges by Rate Schedule

Class	Exported Energy as a % of Full Requirements Usage	Average Energy Charges (¢/kWh)
Residential NEM	20.3%	9.96
Schedule 23 NEM	18.6%	8.84
Schedule 6 NEM	0.3%	3.99

This indicates that a movement to the Net Billing program for Schedule 6 customer generators would have a far smaller bill impact than for residential and Schedule 23 customers.

Conclusion

Q. What is your recommendation for the Commission?

A. The Company recommends that the Commission approve separate customer classes comprised of residential and Schedule 23 customer generators; close the Net Metering program and corresponding tariff – Schedule 135 to new service; and approve the creation of a new different, successor program and corresponding tariff, Schedule 136 – Net Billing program, to replace the Net Metering program. If the Commission determines that existing customer generators must be on the same program as new customer generators, the Company recommends that the Commission approve its Alternative Transition Plan.

Q. Does this conclude your direct testimony?

A. Yes.