

The Alliance for Solar Choice
Direct Testimony of Nathanael Miksis
Docket No. 13-035-184

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of Rocky Mountain Power for Authority To Increase its Retail Electric Utility Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Service Regulations.

Docket No. 13-035-184

**REBUTTAL TESTIMONY OF NATHANAEL MIKSIS
ON BEHALF OF THE ALLIANCE FOR SOLAR CHOICE**

RATE DESIGN (NET METERING)

JUNE 26, 2014

1 benefits of the NEM program pursuant to language in SB 208, but “recommend[s]
2 that the Commission open a docket to explore issues raised by [the law].”¹

3

4 **Q. DOES DPU GENERALLY AGREE WITH TASC, SIERRA CLUB,**
5 **UTAH CLEAN ENERGY, AND UCARE THAT RMP HAS NOT**
6 **PUT FORWARD SUFFICIENT DATA OR ANALYSIS THAT**
7 **WOULD ALLOW THE COMMISSION TO QUANTIFY AND**
8 **DETERMINE THE COSTS AND BENEFITS OF THE NET**
9 **METERING PROGRAM IN THIS PROCEEDING?**

10 A. Yes, Witness Faryniarz for DPU states that: “The Net Metering Charge
11 should be reviewed carefully within the context of a benefit-cost analysis, to the
12 extent practicable, in this rate proceeding, as directed in recent Utah legislation,
13 Senate Bill 208. *The Company has not provided such a benefit-cost analysis of*
14 *the net metering program.*”² (emphasis added).

15

16 **Q. DO YOU AGREE WITH WITNESS FARYNIARZ’ ASSERTION**
17 **WITH RESPECT TO SENATE BILL 208?**

18 A. Not entirely. SB 208 is clear on requiring a cost-benefit analysis of the
19 NEM program before implementing a charge (or a credit, or another ratemaking
20 structure), but says nothing to the effect that this analysis is to be undertaken only

¹ Direct Testimony of Artie Powell, lines 268-283.

² Direct Testimony of Stan Faryniarz, lines 72-75.

1 “to the extent practicable.” Additionally, as I stated in my direct testimony, and as
2 many other intervener witnesses noted, SB 208 requires the Commission to look
3 at the entire net metering program before even determining the appropriate rate
4 structure, while the Company’s proposal focuses solely on a monthly charge to
5 residential NEM customers. I believe that it would not be appropriate for the
6 Commission to approve the charge in this proceeding pursuant to the SB 208 cost-
7 benefit standard due to the current paucity of relevant analysis and data from the
8 Company and the time it would take for the Company to produce a sufficient
9 record. If the record of the current proceeding is too bare to support a
10 Commission determination that complies with the mandate of SB 208, then it is
11 reasonable to expect that a separate, subsequent proceeding will be required to
12 comply with SB 208. I believe that it would be inefficient and counterproductive
13 for parties, and the Commission, to essentially litigate this issue in this proceeding
14 under a different ratemaking standard than SB 208 requires, only to have to revisit
15 the issue at some later time to comply with the requirements of the law.

16
17 **Q. DOES DPU SUGGEST THAT A COST-BENEFIT ANALYSIS**
18 **WOULD BE HELPFUL IN DETERMINING WHETHER RMP’S**
19 **PROPOSED NEM FACILITIES CHARGE IS JUSTIFIED?**

20 A. Yes, in the section of testimony I cite above, Witness Faryniarz
21 recommends that the NEM charge should be reviewed carefully in the context of
22 a cost-benefit analysis.

1 **Q. WHAT IS DPU’S JUSTIFICATION FOR SUPPORTING A NEM**
2 **CHARGE IN THIS PROCEEDING?**

3 A. Witness Powell states that the DPU “views the net metering charge as a
4 cost causation issue,” and argues that the reduced consumption of NEM
5 customers means that the Company will have greater difficulty recovering their
6 fixed costs through variable energy sales to these customers. Consequently, he
7 asserts that fixed costs not recovered from NEM customers must be recovered
8 from non-NEM customers, a result he considers cost-shifting. Witness Powell
9 also mentions the principle of price signaling in support of a NEM charge:
10 “[R]ates designed incorrectly are less likely to provide proper price signals to all
11 customers and thus fail to promote efficient utilization of scarce resources.”³

12
13 **Q. DOES WITNESS POWELL MAKE MENTION OF ANY OTHER**
14 **CIRCUMSTANCES UNDER WHICH THE COMPANY COULD**
15 **HAVE DIFFICULTY COLLECTING FIXED CHARGES?**

16 A. Yes. In addition to mentioning the reduced energy consumption of NEM
17 customers, he also cites other customers who reduce consumption through other
18 means (namely conservation measures) as a threat to the Company recovering
19 their fixed costs.⁴

20

³ Direct Testimony of Artie Powell, lines 182-205.

⁴ Direct Testimony of Artie Powell, line 204.

1 **Q. IS DPU RECOMMENDING A CHARGE FOR CUSTOMERS WHO**
2 **REDUCE CONSUMPTION THROUGH CONSERVATION**
3 **MEASURES?**

4 A. No, they are not.

5

6 **Q. DOES DPU ADDRESS ANY CONCERNS ABOUT**
7 **IMPLEMENTING A NEM CHARGE IN THIS PROCEEDING?**

8 A. Yes, Witness Powell makes several points in testimony that are relevant to
9 the discussion of the proposed NEM charge:

- 10 • Price discrimination: He argues that the charge does not constitute
11 discrimination against NEM customers because the charge is not intended
12 to charge different customers different prices, but to ensure that all
13 customers pay the same price for the service received (use of the grid
14 infrastructure).⁵
- 15 • Benefits of NEM: He argues that the charge is justified even without an
16 accounting of the benefits provided to the grid by the distributed
17 generation systems of NEM customers, because a NEM charge is intended
18 to recover costs, and compensation for benefits should be handled
19 separately.⁶

⁵ Direct Testimony of Artie Powell, lines 241-243.

⁶ Direct Testimony of Artie Powell, lines 254-260.

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Q. DO YOU AGREE WITH WITNESS POWELL’S REASONING ON THE NEM CHARGE?

A. No, I do not. I will address Witness Powell’s arguments in order: Cost-causation/cost-shifting, price signaling, price discrimination, and benefits of NEM.

- Cost-causation/cost-shifting: Witness Powell suggests that since both NEM and non-NEM customers use the grid infrastructure, they share equal responsibility for contributing to the fixed costs incurred to build it. He asserts that “[n]et metering customers, while decreasing their energy consumption taken from the Company, still utilize the infrastructure put in place to deliver energy when needed.”⁷ This reasoning ignores the fact that NEM customers typically generate during on-peak hours and Commission history of i) acknowledging differences in peak usage among customers and ii) affirming that volumetric rates are therefore the proper vehicle to collect most fixed costs.
- Price signaling: Witness Powell asserts, “[R]ates designed incorrectly are less likely to provide proper price signals to all customers and thus fail to promote efficient utilization of scarce resources.”⁸ However, he fails to

⁷ Direct Testimony of Artie Powell, line 184-187.
⁸ Direct Testimony of Artie Powell, line 196-198.

1 demonstrate how the current rates structure gives improper price signals.
2 This assumes that the behavior being supported by current rate design
3 results in inefficient utilization of scarce resources. Without this showing,
4 the principle of price signaling cannot be interpreted to support a NEM
5 charge.

- 6 • Price discrimination: Witness Powell argues that “[t]he net metering
7 charge is not about charging different customers different ‘prices’ [for the
8 same good] but rather about ensuring that all customers pay the same
9 price.”⁹ However, the facts show otherwise. Customers who reduce their
10 energy consumption (and consequently their use of grid infrastructure)
11 through means other than on-site generation are not being singled out for
12 this or any similar charge. A NEM charge would effectively be charging a
13 different price to similarly situated customers for the same service. That is
14 price discrimination. I agree that sometimes price discrimination is
15 justified, and in fact Witness Powell provides an example of justifiable
16 price discrimination in his example of movie theater ticket prices for
17 children and adults. He asserts (and I agree) that the respective situations
18 of a child and an adult (ability to pay) often justify charging different
19 prices for effectively the same good (the same movie and virtually
20 identical seat occupancy). Price discrimination in ratemaking may have

⁹ Direct Testimony of Artie Powell, line 241-243.

1 some precedent (for example, subsidized electric rates for low-income
2 customers, which are justified based on circumstance primarily and use of
3 grid services only secondarily, if at all), but as I understand it, the
4 evidentiary bar to justify its implementation is high, especially for
5 similarly situated customers within a single rate class.

- 6 • Benefits of NEM: Witness Powell suggests that a NEM charge is
7 warranted because “[t]he net metering charge is about collecting costs not
8 about compensating for benefits.” He suggests that “uncaptured benefits
9 from the net metering program or its customers” should be accounted for
10 on the “compensation side of the equation.”¹⁰ This is contrary to the cost-
11 causation principle of ratemaking because it is effectively implementing a
12 charge before knowing the actual (net) cost to serve a customer.

13
14 **I. REBUTTAL TO OCS WITNESS GIMBLE**

15 **Q. WHAT IS THE POSITION OF THE OCS ON THE NEM**
16 **CHARGE?**

17 A. Witness Gimble, testifying on behalf of the OCS, agrees with the
18 Company’s assertion of a cost-shift between NEM and non-NEM customers due
19 to their reduced contribution to fixed cost recovery through variable energy sales.

¹⁰ Direct Testimony of Artie Powell, lines 254-260.

1 However, rather than supporting the Company’s proposed flat NEM charge, OCS
2 recommends a per-kW charge of \$1.60/kW per month.

3

4 **Q. DOES OCS GENERALLY AGREE WITH TASC, SIERRA CLUB,**
5 **UTAH CLEAN ENERGY, AND UCARE THAT RMP HAS NOT**
6 **PUT FORWARD SUFFICIENT DATA OR ANALYSIS THAT**
7 **WOULD ALLOW THE COMMISSION TO QUANTIFY AND**
8 **DETERMINE THE COSTS AND BENEFITS OF THE NET**
9 **METERING PROGRAM IN THIS PROCEEDING?**

10 A. Yes. Witness Gimble states that, while the Company supplied some data
11 on cost to serve an average NEM customer, they were unable or unwilling to
12 provide data on several other components of costs and benefits relevant to an
13 adequate cost-benefit study, including: NEM customer impacts on the Utah
14 distribution system, benefits of NEM energy production (including avoided
15 energy and capacity costs). Specifically, Witness Gimble stated that:

16 1. “[T]he Company was unable to provide any credible evidence either in
17 direct testimony or in response to OCS discovery that output from Utah
18 residential NM customers was materially impacting its Utah distribution
19 system.”¹¹

¹¹ Direct Testimony of Daniel E. Gimble, lines 515-517.

1 2. “[T]he Office requested detailed data on the energy and capacity (if
2 applicable) avoided by residential NM output on an annual total dollar and
3 \$/kWh basis. In particular, we were seeking to better understand the types
4 of energy and capacity resources (market purchases, peaking resources,
5 etc.) avoided by NM production over different time periods. However, the
6 Company was unable to provide any analysis of benefits...”¹²

7 **Q. DOES OCS SUGGEST THAT A COST-BENEFIT ANALYSIS**
8 **WOULD BE HELPFUL IN DETERMINING WHETHER RMP’S**
9 **PROPOSED NEM FACILITIES CHARGE IS JUSTIFIED?**

10 A. Yes, Witness Gimble states that, “[a]t this point, the Commission would
11 need a more complete set of information to accurately determine the value of NM
12 output and compare it to the total costs of serving a residential NM customer.”¹³

14 **Q. WHAT IS THE REASONING OF WITNESS GIMBLE IN**
15 **SUPPORTING A NEM CHARGE?**

16 A. The reason for supporting a NEM charge given by Witness Gimble is the
17 concern over cost shifting. “The Office supports the concept of assessing a new
18 NM facilities charge on the bills of residential NM customers. If a NM facilities
19 charge is not developed to recover distribution-related fixed costs, there will
20 continue to be a cost shift from residential NM customers to non-NM residential

¹² Direct Testimony of Daniel E. Gimble, lines 600-605.

¹³ Direct Testimony of Daniel E. Gimble, lines 617-619.

1 customers.”¹⁴ This conclusion is based on cost-shift estimates provided by the
2 Company in response to data requests from OCS.

3
4 **Q. DO YOU AGREE WITH THIS REASONING?**

5 A. No, I do not. First of all, though Witness Gimble uses the cost-shift
6 estimates provided by the Company in support of a NEM charge intended to
7 recover distribution-level costs, the estimates provided by the company include all
8 fixed costs in the residential class revenue requirement (including generation and
9 transmission), not just distribution-level costs. Second, it is important to put these
10 numbers in context. A cost-shift of \$701,296 (which is what the Company
11 estimated based on current NEM distributed generation), if spread evenly over all
12 non-NEM customers (the company estimates approximately 703,000 non-NEM
13 residential customers), is approximately \$0.95/year, which is 1/1000th of each
14 customer’s share of the total residential revenue requirement (\$964/year).
15 Omitting generation and transmission-related fixed costs, but keeping all
16 distribution-level costs, the yearly per-non-NEM customer “cost-shift” is
17 approximately \$0.33/year (or approximately \$246,000/year Company-wide).

18
19 Witness Gimble’s reasoning also ignores a number of important principles: first,
20 inclusion of all distribution-level costs in fixed charges to a class or sub-class of

¹⁴ Direct Testimony of Daniel E. Gimble, lines 639-642.

1 customers has never been Commission policy (in fact, it has been considered and
2 previously rejected, as I cite in my direct testimony¹⁵); second, neither costs nor
3 benefits attributable to NEM customers have been calculated, as the record in this
4 proceeding shows; third, without a full accounting of costs and benefits (including
5 any avoided future investments to the grid resulting from distributed generation at
6 NEM customers' homes) it is not possible to conclude that cost shifting is, in fact,
7 taking place¹⁶; fourth, in its reaffirmation that distribution-level fixed costs are
8 properly recovered in variable energy sales and not in fixed charges, the
9 Commission acknowledged that differences in peak usage are a significant reason
10 supporting this rate design¹⁷; finally, NEM customers with on-site solar
11 generation typically produce energy during peak hours, directly offsetting their
12 peak usage of the grid and thus avoiding among other costs, distribution capacity
13 costs.

14

15 **Q. WHAT OTHER RELEVANT FACTORS DOES THE OCS CITE IN**
16 **THEIR TESTIMONY THAT WOULD SUPPORT OR OPPOSE A**
17 **NEM CHARGE?**

¹⁵ Direct Testimony of Nathanael Miksis, page 32.

¹⁶ If, for example, NEM customers' on-site generation allows the Company to avoid costly distribution-level infrastructure upgrades equal to \$246,000 on a present value annual basis, then logically, no cost shift is occurring.

¹⁷ Docket 09-035-23, "Report and Order on Rate Design," p. 30 (June 2, 2010).

1 A. Witness Gimble provides a fairly complete, though high-level, summary
2 of the OCS' position on the NEM charge:

3 "At this point, the Commission would need a more complete set of
4 information to accurately determine the value of NM output and
5 compare it to the total costs of serving a residential NM customer.

6 We expect that the benefits derived from NM production would
7 offset a portion of the fixed and variable costs in the generation
8 and transmission categories. However, the Office does not believe
9 that evidence can be produced to show that the residential NM
10 output provides enough value to offset distribution costs. The
11 Office notes that NM customers use the distribution system both to
12 serve their load when their PV systems are not producing *and* to
13 put excess generation onto the power grid. Therefore, ... the
14 Office is concerned about the shift in distribution-related fixed
15 costs from NM to non-NM residential customers."¹⁸

16

17 **Q. DO YOU BELIEVE THAT THE RECORD IN OCS TESTIMONY**
18 **SUPPORTS IMPLEMENTING A NEM CHARGE?**

19 A. No, I do not. Witness Gimble fully acknowledges in testimony that
20 the Company failed to provide a full record that would allow the

¹⁸ Direct Testimony of Daniel E. Gimble, lines 617-627.

1 Commission to determine the actual costs and benefits of the NEM
2 program. Without this record, arguing for or against a charge (or a credit)
3 is premature. The missing evidence, as cited in OCS testimony, includes:

- 4 • Impacts on the distribution system. “The Company was unable to
5 provide any credible evidence either in direct testimony or in
6 response to OCS discovery that output from Utah residential NM
7 customers was materially impacting its Utah distribution
8 system.¹⁹” Additionally, “While the Barker and De Mello paper
9 [cited by the Company in response to data requests] suggests that
10 the location of residential NM customers along a feeder line could
11 pose voltage control concerns, the Company has not provided any
12 evidence that this situation has occurred on its Utah distribution
13 system or is expected to take place as the residential NM program
14 expands. Further, the Company has not provided any evidence that
15 the presence of the residential NM load has impacted tap changer
16 operations.”²⁰

- 17 • Costs attributable to NEM customers. “[T]he Company’s proposed
18 NM facilities charge is limited to recovering only the distribution
19 costs associated with serving the *average Utah residential*

¹⁹ Direct Testimony of Daniel E. Gimble, lines 517-519.

²⁰ Direct Testimony of Daniel E. Gimble, lines 559-565.

1 *customer.*” (emphasis added). This is problematic for two reasons:

2 First, the Commission has previously rejected fixed charges

3 intended to cover costs that are not attributable to individual

4 customers. Including all distribution costs in the category of costs

5 to be recovered through a fixed charge is contrary to Commission

6 precedent and the currently-standing method for calculating costs

7 properly recovered through fixed charges. Second, basing a charge

8 on the cost to serve an average customer ignores differences in

9 customer usage of the power system, and therefore the cost-

10 causation principle of rate-making. As the Commission has

11 previously acknowledged, “[local] distribution facilities are

12 generally designed and built to meet local peak demands.

13 Recovering these fixed costs equally from all customers ignores

14 differences in peak use.”²¹

- 15 • Benefits attributable to NEM customers. “[W]e were seeking to

16 better understand the types of energy and capacity resources

17 (market purchases, peaking resources, etc.) avoided by NM

18 production over different time periods. However, the Company

19 was unable to provide any analysis of benefits...”²²

²¹ Docket 09-035-23, “Report and Order on Rate Design,” p. 30 (June 2, 2010).

²² Direct Testimony of Daniel E. Gimble, lines 602-605.

1 Despite the lack of a complete record that would settle whether a charge or
2 a credit might be warranted, Witness Gimble supports a NEM charge,
3 based solely on the Company’s own asserted distribution-level fixed-cost
4 shift from NEM customers to non-NEM customers.

5

6 **Q. DOES THE OCS PROVIDE A COST BASIS FOR APPROVING A**
7 **NEM FACILITIES CHARGE AT THIS TIME, BEFORE A**
8 **COMPLETE COST-BENEFIT STUDY HAS BEEN PERFORMED?**

9 A. No. OCS essentially states that approving a NEM Facilities charge
10 should be done now as a means of establishing policy.

11

12 **Q. WHAT POLICY REASON DOES OCS CITE TO SUPPORT A NEM**
13 **CHARGE?**

14 A. Witness Gimble mentions the need to impose their proposed NEM
15 charge in order “to send a clear policy signal in this proceeding on the NM
16 facilities charge so that potential NM customers can make an informed
17 economic decision when evaluating whether or not to invest in a solar PV
18 system. Delaying a decision on the NM facilities charge would create
19 uncertainty for prospective NM customers while leaving the current cost
20 shift issue unresolved. Therefore, the Commission needs to develop a
21 blueprint for its NM policy because postponing a decision on the facilities

1 charge issue is both unfair to future NM and non-NM residential
2 customers.”²³

3

4 **Q. DO YOU AGREE WITH THIS REASONING?**

5 A. No. It is far from settled that a charge is even warranted. Witness

6 Gimble argues that the need to provide certainty to potential NEM

7 customers supports setting a charge now. This reasoning is flawed. The

8 benefit of setting policy sooner than later would be equally met with a

9 NEM charge of \$0 (or even a *credit*) as with the one that OCS proposes.

10 The decision before the Commission in this proceeding with respect to a

11 NEM charge should not be framed as whether it should postpone

12 consideration of the proposed charge. Rather, it should be framed as

13 whether a just and reasonable charge, credit or other ratemaking structure

14 applicable to NEM customers is warranted given the record.

15

16 **Q. HOW WOULD YOU PROPOSE THAT THE COMMISSION**

17 **ADDRESS THE POLICY QUESTION REGARDING NET**

18 **METERING THAT OCS WITNESS GIMBLE RAISED IN DIRECT**

19 **TESTIMONY?**

²³ Direct Testimony of Daniel E. Gimble, lines 724-727.

1 A. I propose that the Commission open a separate proceeding to determine a
2 cost-benefit framework for evaluating the NEM program. This framework will
3 allow the Commission to determine definitively whether the proper solution to the
4 issues raised on NEM costs and benefits in this proceeding (and in consideration
5 of SB 208) is a charge, a credit, another ratemaking structure or no change at all.
6 This will allow the Commission to establish a basis for a just and reasonable rate
7 structure applicable to NEM customers in future GRCs. I believe that the claimed
8 policy goal of avoiding delay and providing certainty is outweighed by the need
9 to first establish a complete record that would support a ratemaking decision on
10 this topic. Indeed setting that rate before that record is established does nothing to
11 reduce uncertainty.

12

13 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

14 A. Yes, it does.