

**THE STATE OF NEW HAMPSHIRE
BEFORE THE
NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION**

REBUTTAL TESTIMONY OF

**David P. Littell on behalf of
Clean Energy New Hampshire**

**in response to
the Office of the Consumer Advocate's Testimony**

**CONSIDERATION OF CHANGES TO THE
CURRENT NET METERING TARIFF STRUCTURE,
INCLUDING COMPENSATION OF CUSTOMER-GENERATORS**

Docket No. DE 22-060

January 30, 2024

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DPL Reply-A **OCA Responses to Clean Energy NH Data Request Set 1, Response to CENH 04.**

1 **I. INTRODUCTION.**

2 **Q. What is your name, business, address, position, and work?**

3 A. My name is David Littell. My business address is 100 Middle Street, West Tower,
4 6th Floor, Portland, Maine 04101. I am a shareholder in Bernstein, Shur, Sawyer, & Nelson where
5 I work on utility, energy, and regulatory matters for utilities, energy companies, buyers and sellers
6 of energy projects, municipalities, competitive electricity providers, state commissions, consumer
7 advocates, and non-governmental entities.

8 **Q. Have you previously submitted testimony in this Docket?**

9 A. Yes, On December 6, 2023, I submitted direct testimony on behalf of Clean Energy New
10 Hampshire. My qualifications, experience, and qualifications are described in the *curriculum*
11 *vitae*, **Attachment DPL-1** to my direct testimony.

12 **Q. What is the purpose of your rebuttal testimony?**

13 A. The purpose of this rebuttal testimony is to respond as a policy expert to the direct
14 testimony of David Borden and Tim Woolf of Synapse Energy Economics (“Synapse”) on behalf
15 of the New Hampshire Office of the Consumer Advocate (the “OCA”). In this rebuttal, I reply to
16 the OCA testimony on issues relating to data collection, hourly netting, and payback periods. I
17 also address the assumption of lost utility sales and corresponding equity impacts which is an issue
18 raised by the Synapse testimony. I find the “lost revenue” and equity assertions unsatisfactory in
19 this formulation due to incomplete data. I raise these last points should the New Hampshire Public
20 Utilities Commission (the “Commission”) embark on additional data collection examination as
21 OCA suggests.

22 **II. SUMMARY OF THE OCA’S TESTIMONY.**

23 **Q. Can you summarize the OCA’s Testimony?**

24 A. I am reluctant to summarize or characterize the OCA’s testimony. I will just touch on issues

1 to which we reply in this rebuttal testimony.

2 **Q. What are those issues?**

3 A. The OCA's experts, Tim Woolf and Eric Borden of Synapse, testify that Net Energy
4 Metering ("NEM") is not a "set it and forget it" endeavor. They also suggest periodic evaluations
5 that should be informed by quantitative analyses.

6 **Q. Are there other issues?**

7 A. Yes, the OCA presents purposes for data evaluation: to evaluate whether customers are
8 adopting distributed generation and whether NEM results in "cost-shifting"?

9 **Q. Does the OCA speak to rate impacts?**

10 A. Yes, the OCA, on page 9, lines 1-4 of its testimony, states that rate impacts under NEM 2.0
11 are "currently low and will remain low for the next several years."

12 **Q. Does the OCA present alternative designs?**

13 A. Yes, the OCA suggests on page 9, lines 8 to 14 of its testimony, that hourly netting be
14 considered and be a fixed export rate.

15 **Q. What are other OCA recommendations?**

16 A. The OCA recommends that NEM 2.0 should stay in place for two to three years
17 followed by a reevaluation. OCA Testimony, p, 9, lines 17-19.

18 **Q. What would the reevaluation involve?**

19 A. The OCA, on page 10, suggests that the Commission should reevaluate the customer
20 payback period, its hourly netting idea and its fixed compensation proposal. The OCA also
21 suggests periodic reviews.

22 **III. RESPONSE TO THE OCA TESTIMONY.**

23 **Q. Do you agree with the OCA's testimony?**

24 A. In part yes and in part no.

1 **Q. Do you agree with the OCA’s testimony that NEM is not a “set it and forget it”**
2 **endeavor?**

3 A. Yes, I think that commissions and utility regulators in multiple jurisdictions reevaluate
4 NEM as they do other rate designs. I agree the NEM and all rate designs should be periodically
5 reevaluated.

6 **Q. Do you agree with the OCA testimony that NEM should have periodic evaluations**
7 **that should be informed by quantitative analyses?**

8 A. Yes, I agree that analyses of multiple goals and considerations, quantitative and qualitative
9 should occur. There is a dearth of data on some issues. Discussing data collection is not an issue
10 we briefed. We are happy to have that discussion with the parties here.

11 The data that is important is to specify together, with reporting or evaluation formats, on
12 all of the avoided costs, benefits, and related issues.

13 **Q. Do you agree with the OCA testimony that data evaluation should be to evaluate**
14 **whether customers are adopting distributed generation and whether NEM results in**
15 **“cost-shifting”**

16 A. I do not see the relevance of the customer-payback analysis. Having consultants, state
17 departments, and the Commission consider payback periods is not clear to me why and how that’s
18 useful. The OCA expert calculation is far beyond any commercially acceptable payback period
19 for a commercial business for new rooftop solar. So the issue becomes what else, what other
20 motivations does a residential or commercial entity have to install an NEM facility. I’m not sure
21 why we want to debate that and it seems very hard to resolve in the Commission regulatory context.
22 A payback period seems much more of business analysis.

23 On cost-shifting, there are different ways to calculate and portray a “cost-shift.” So there
24 needs to be a discussion of data to be collected, evaluated, and reported. I do not oppose, I just

1 note that the issue was not set up by the Commission’s notice, so this issue is not fully briefed.

2 **Q. Do you agree with the OCA testimony on page 9, lines 1-4, that states that rate impacts**
3 **under NEM 2.0 are “currently low and will remain low for the next several years.”?**

4 A. Yes, I agree. I think all the analyses and models in this docket reach that general conclusion
5 using different methodologies. The Crossborder analysis by Tom Beach shows positive ratepayer
6 benefits, not a cost at all.

7 **Q. Do you agree with the OCA testimony on page 9, lines 8 to 14, that hourly netting be**
8 **considered and a fixed export rate?**

9 A. I am not sure that hourly netting is worth the cost, expense and effort. For customers with
10 internal meters, there’s a discussion on the ability, difficulty and expense of the utilities collecting
11 that information. For customers without interval meters, I am not sure if the proposal is to install
12 interval meters to gather this information or how to gather that information?

13 On the fixed export rate suggestion, that is an entirely different solar customer tariff
14 arrangement. The OCA testimony does not develop that idea or concept with any specificity. So I
15 assume it’s a future consideration. I am sure that limiting future Commission’s decisions on what
16 future tariffs might be considered is something this Commission would entertain. I observe that
17 the record is not well developed for entirely different models at this point.

18 **Q. Do you agree with the OCA testimony that NEM 2.0 should stay in place for two to**
19 **three years, followed by a reevaluation? See OCA Testimony, p, 9, lines 17-19?**

20 A. Clean Energy NH (“CENH”) has recommended revisions to NEM 2.0 as new NEM 3.0.
21 CENH is happy to see those recommendations stay in place for two to three years pending
22 additional data development.

1 **Q. Do you agree with the OCA testimony that the Commission should reevaluate the**
2 **customer payback period, its hourly netting idea and its fixed compensation proposal in**
3 **periodic reviews?**

4 A. I think the Commission should focus on avoided costs and benefits data reporting in
5 periodic reviews and not limit a future Commission to specific revisions.

6 **IV. ENERGY SALES IMPACT.**

7 **Q. Does the OCA take a position on whether NEM participation increases costs?**

8 A. Yes, the OCA testifies that NEM reduces energy sales. On page 17, lines 4 to 6, the OCA
9 testifies that “[e]nergy sales decline with NEM participation, resulting in fewer sales over which
10 to recover costs. To recover its revenue requirement, the utility has to increase rates for all
11 customers.”

12 **Q. Do you agree with this testimony?**

13 A. Yes and no. Yes on a narrow basis of just looking at NEM without considering more
14 broadly consumer-generator adoptions, I understand the OCA’s math. That said, there is a strong
15 correlation between NEM adoption and electric vehicle (“EV”) and electric space-heating
16 adoption.¹ Both of those customer behaviors likely increase sales greater than the sale losses
17 through NEM alone.

18 **Q. Why is customer behavior important here?**

19 A. It’s important because it undercuts the assumption there is a revenue loss here. And it
20 undercuts the assumption there may be a cost shift.

21 **Q. Can you explain?**

¹ See, e.g., S. Sharda, V.M. Garikapati, K.G. Goulias, J.L. Reyna, B. Sun, C.A. Spurlock, Z. Needell, “The electric vehicles-solar photovoltaics Nexus: Driving cross-sectoral adoption of sustainable technologies,” *Renewable and Sustainable Energy Reviews*, Vol. 191, 114172, March 2024, on the web at: <https://www.sciencedirect.com/science/article/abs/pii/S1364032123010304?dgcid=author>; National Renewable Energy Laboratory (NREL), News Release: Green Wheels, Bright Skies: NREL Analysis Unveils the Connection Between Electric Vehicles and Photovoltaics, Jan. 24, 2024.

1 A. Yes, if the customer-generator, say a residential customer, also installs multiple heat pumps
2 and drives an EV that they charge at home, even with a full rooftop of solar panels, that consumer
3 would likely still buy more electricity net from the utility. That would increase sales, not decrease
4 sales.

5 **Q. Would there be additional utility costs to those increased sales?**

6 A. Immediately, the marginal increases in sales would increase kWh acquisition of default
7 service. At a small level, the increase in the default service cost would be the kWh charge for
8 default service. If the increases in sales occur during off-peak periods – for example, with managed
9 charging of EVs – then all ratepayers will benefit by spreading the utility’s costs over greater
10 volumes of electric use.

11 **Q. Can you summarize?**

12 A. Yes, in summary, the assumption there is a revenue loss is likely incorrect as customers
13 interested in NEM often are interested in other prosumer adaptations of energy usage, which include
14 beneficial electrification. Air- or ground-source heat pumps in the New England climate increase
15 electricity sales on a monthly basis and increase electricity usage. EVs can double a household’s
16 electricity sales on a monthly basis, while charging is easily managed to ensure charging occurs
17 off-peak.

18 It is not unusual to see an NEM customer also adopt EV and efficient home heating uses
19 such as heat-pump technologies. For that reason, I think focusing on NEM narrowly does not give
20 due consideration to the role that NEM customers are playing in reducing rate impacts by
21 increasing sales rather than decreasing sales.

22 **Q. Are you proposing that the Commission or parties do quantitative analysis of the**
23 **energy prosumer issue here to assess impact on rates?**

24 A. No. This issue arose in the 2017 NEM proceeding as well. Then, as now, there was a

1 recognition that data sets on this issue of how much there is parallel adoption of NEM, EVs, and
2 electric heating are not well developed. I do not think the data is robust enough to do a quantitative
3 analysis. I do think that, if there is data gathering for NEM customers, including virtual NEM
4 customers for municipal host NEM, analyzing that data for future evaluation would be advisable
5 to assess whether and to what extent NEM customers also adopt beneficial electrification measures
6 and the corresponding changes over multiple years in overall customer sales. Data may well show
7 that NEM customers are overall increasing sales and therefore reducing rate impacts.

8 **V. EQUITY IMPACT.**

9 **Q. Do you agree with the OCA that lower-income customers disproportionately pay**
10 **NEM costs?**

11 A. No, CENH does not agree.

12 **Q. Can you explain why?**

13 A. For the reasons explained in the prior section, CENH members generally observe much
14 adoption of beneficial electrification. This increases sales for many NEM customers greater than
15 any NEM sale decreases.

16 **Q. What equity impacts does that have?**

17 A. When an NEM customer also installs electric heat pumps and/or adopts an EV, then sales
18 increase for that customer. That sales increase increases the overall sales for the utility, which are
19 the denominator in a rate case by which the revenue requirement is divided. That has the impact
20 of reducing rates. That impact also reduces what lower-income households, who are not NEM
21 participants, would pay.

22 **VI. CONCLUSION.**

23 **Q. Can you summarize your reply testimony?**

24 A. Yes.

1 Q. Does this conclude your testimony?

2 A. Yes. Thank you.