

**THE STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSISON**

**DE 16-576**

**ELECTRIC DISTRIBUTION UTILITIES**

**Development of New Alternative Net Metering Tariffs and/or  
Other Regulatory Mechanisms and Tariffs for Customer-Generators**

**Closing Statement of City of Lebanon, NH**

April 13, 2017

**1. Introduction and City of Lebanon Proposed Real Time Pricing (RTP) NM Pilot**

At the outset of this proceeding the City of Lebanon characterized this proceeding and its underlying legislative intent as an effort to move net metering policy from a rough justice to a more granular and refined justice. Ex. 25, 4-5. All of the parties seem to agree that we need to better understand and document the value of net metered customer-generation, or more broadly the value of distributed energy resources, and transition to charges and credit rates based on those values, and as we lack complete data and analysis at this time, we need to take intermediate steps coming out of this proceeding to move in the right direction. The Energy Freedom Coalition (EFC) testified of need to “begin the transition to a value based program that sends stronger and more precise price signals, and ultimately leverage DER to help reduce the cost of the electricity for all New Hampshire ratepayers.” Ex. 1, 2. Witness Ashley Brown, on behalf of the Utility/Consumer proposed partial settlement, described historic net metering policies, based on a simple 1 to 1 volumetric credit on energy exports against imports as the “most primitive” rate design option on a spectrum in which real time pricing (for the energy component) would be on the other end as a theoretically most appropriate and optimal price signal. Tr. Day 2 PM, 8-11, 44-45.

In its Direct and Rebuttal Testimony the City has proposed to undertake a RTP pilot for net metering and load in general using the Municipal Aggregation statute, RSA 53-E. We

believe that there is much value to be gained from such a pilot. While at hearing the City acknowledged that it doesn't need Commission approval to initiate a municipal aggregation pursuant to RSA 53-E, but the City also pointed out that in all likelihood Commission approval will be needed to enable the real time pricing aspects of the proposed pilot. Tr. Day 3 PM, 59-60. In its Direct Testimony the City noted that existing tariff options for interval metering "are simply cost-prohibitive for all but the largest accounts." Ex. 25 at 10, lines 279-282 and FN 4. This testimony was not rebutted. To fully enable a RTP pilot, in which load is charged and customer-generation is credited for energy based on RTP, based on their actual hourly load or production, will require Commission approval, such as for a pilot tariff or rule waiver to accommodate a cost-effective revenue grade meter and data collection system. Liberty Utilities has indicated a willingness to work with the City to try and find a workable solution to the meter and data needs to support such a pilot and the City and Liberty expect to return to the Commission for approval of implementing details. Tr. Day 2 PM, 12-13. Further, both partial settlements refer to develop of pilot tariffs to give credit to >100 kW net metered generation for actual avoided marginal transmission costs. Ex. 2, 3; Ex 5, 10. Liberty has also indicated a willingness to work with the City to develop and implement such a pilot tariff as part of the City's RTP pilot. Tr. Day 2 P, 13-14. Such a pilot tariff will also need Commission approval to be implemented.

Due to the considerable work and investment by the City that lies ahead to successfully implement its proposed RTP NM pilot, the City respectfully requests that the Commission approve and express its support for the City's proposed RTP pilot in concept, understanding that implementation details, particularly as to metering and a transmission credit pilot tariff for large NM projects, will need subsequent Commission review and approval.

2. **Relevance of Grid Modernization Report (IR 15-296) to Net Metering**

Many of the parties in this proceeding also participated in the nearly concurrent Grid Modernization Working Group and the development of its Report filed in late last month. At

hearing a question arose as to its relevance to this proceeding. Ms. Tebbetts testified on behalf of the Utility/Consumer Coalition that the rate design principles articulated in the Grid Modernization Report “are not applicable to net metering.” Tr. Day 2 PM, 110-111. However that is not exactly what the report states. In Exhibit 72 at page 14 (all page number references are to the Bates number), in the last paragraph under the Rate Design Principles the Report states, as consensus language:

As this report was being developed, a separate net metering proceeding was pending in Docket No. DE 16-576, therefore we are not addressing specific net metering recommendations in this report. However, the rate design principles in this report should be generally applicable to distributed energy resource customers in the future.

In the next paragraph, under Rate Design Recommendations, the Report goes on to note that: “Because net metering customers are being dealt with currently in NH in a separate docket, these recommendations are not necessarily meant to cover net metering customers.” “Not necessarily” is not the same as “not applicable.” Furthermore that section concludes under a subheading on “Net Metering” on p. 18 by stating: “As already noted, rate design decisions have impacts under net metering proposals in that docket and the two issues are intertwined.”

The intertwining of these issues does have relevance in how this case is decided and the next steps toward Grid Modernization and the further refinement of net metering terms and rates. For example, the metering challenges and possible options to enable interval data and opt-in real time pricing, such as the City is proposing in its RTP NM pilot, are discussed under the section of “Technology Opt-In to Support TVR for Competitive Supply of Generation and More” on pp. 20-24 and merit consideration in the resolution of this case and development of pilots.

3. **Monthly Netting versus No Netting (“Instantaneous Netting”)**

While both settlements propose to use a bidirectional meter with separate instantaneously measured import and export channels for non by-passable charges, including the Electricity Consumption Tax, the approach to metering and netting, or the lack thereof, for other charges (Energy, Transmission and Distribution), is a fundamental difference in the proposed settlements. Both settlements do provide for the monetization of any net credits at the end of

each billing period, rather than carrying kWh credits forward. The City concurs with this incremental change that helps set the stage for further net metering tariff refinements based on the value of DG. RSA 363-A:9, XVI, allows the Commission to waive or modify certain terms and conditions of net metering established in statute, including the provisions for netting usage (imports less exports) over each billing period in RSA 363-A:9, IV(a) for facilities up to 100 kW, “that it finds to be just and reasonable.” The City does not believe that the record in this proceeding supports such a finding to abandon billing period netting (a.k.a. monthly netting, since most bills are issued monthly), for other than non by-passable charges, and specific time based rates, such as the hourly RTP pilot that the City is proposing that is all-ready provided for in statute (RSA 362:9, II, IV(a), VIII, and XVI).

At hearing the utility/consumer coalition testified that their proposal to use bi-directional metering with separate accounting for all instantaneous imports and exports is “not net metering. Our proposal does not contemplate net metering.” (Mr. Davis on cross, Tr. Day 2 PM, 38). This approach was further described by its proponents as “buy/sell” where “we’re [the utilities] purchasing all power that’s being delivered to the grid as measured at the meter physically.” This approach creates a number of unreasonable problems that can be avoided by maintaining billing period netting for most purposes, something the utility billing software is already capable of:

- I. When combined with no distribution credit for any exports, this approach creates a perverse and inappropriate price signal that it is better for a residential customer to shift as much flexible load as possible to hours when the sun is shining to minimize instantaneous exports, even when the system and other customers might benefit more from maximum exports by such a customer-generator during solar-insolation and air conditioning driven times of peak demand.
- II. There is very little data and understanding in this proceeding as to how much load might be instantaneously offset behind the meter for various customers and NM system types.

This creates problems for potential customer-generators to understand the economics of their potential investment, undermining their reasonable opportunity to self-generate. It is reasonable on the face of it to develop that data and understanding before undertaking such a change in a broad way.

- III. This approach breaks with the PURPA definition of net metering in “which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.” 16 U.S. Code § 2621 (d) (11) cited in Ex. 66, 2-3. This proposed approach unnecessarily cedes fundamental jurisdiction of this proposed tariff from the State of New Hampshire and this Commission to FERC and its jurisdiction over PURPA QF facilities and the sale of electricity from a QF to a utility at wholesale.
- IV. As the Utility/Consumer Coalition Settlement has a provision that if the Commission does not accept that settlement “in its entirety, without change or condition” then the whole agreement may be deemed withdrawn and subject to challenge. Ex. 5, 11. Unless the Commission is prepared to approve that approach without condition, but accepts the buy/sell – no net metering approach of that settlement, then the utilities would be in a strong legal position to challenge any compensation for any exported power as a sale by a QF that can’t exceed avoided wholesale costs without the utility’s express consent. Preserving a monthly netting approach with offsetting of exported power against imports in the first instance would help reduce the risk of such a legal challenge.
- V. Moving to a “buy/sell” approach, particularly where the whole structure of the approach avoids any netting, even for the default service provider or other competitive suppliers with regard to their own wholesale load obligations, results in unnecessary and potentially very significant adverse tax consequences for residential customer-generators. That issue is discussed next.

4. **Avoiding Unnecessary Risk of Adverse Tax Consequences**

A buy/sell approach as proposed by the Utility/Consumer Coalition unnecessarily poses the risk that all instantaneous exports “purchased” by the distribution utility, instead of being used to “offset” a residential customer’s own load, might be deemed taxable income, without a corresponding offsetting non-business expense for electricity purchases. The 30% residential tax credit for the capital cost to install a residential PV system might also be at risk of denial in such a structure. EFC witness Rabago testified as the reality of these risks. Tr. Day 1 PM, 87-97. The City also testified on this issue and provided a law review article as evidence that further elucidated that issue. Tr. Day 3 AM, 123-127, and Ex. 66. While the OCA questioned the exhibits credibility due to the fact that the author was apparently a law student when the article was first written, the City believes that the credibility of the legal analysis speaks for itself. Furthermore, to the extent the Commission does not feel that it has the in-house legal analysis to fully ascertain the significance of this legal risk, it can avail itself of legal analysis support from the NH Department of Justice or even from the NH Department of Revenue, whose Legal Bureau is headed by Revenue Counsel and also has a staff attorney who is a tax policy analyst, pursuant to RSA 368:19 that provides that the “commission may confer and cooperate with any other state, federal, or local agency in any matter relating to its duties.”

5. **Utility/Consumer Settlement Proposal for Dealing with Energy Export Credits**

The utility settlement approach to accounting for energy exports, both in kWh and financial credits (or “payments” as they put it in cross examination) is confusing, obscure, lacking in transparency, and creates unreasonable (and unnecessary) cost/benefit shifting. When the City asked the utility/consumer panel to “cite an economic theory or rate principle by which default service customers would pay for credits to customers that are on competitive supply” none was cited, rather the settlement term (Ex. 5, 6-7) was explained as a “cost recovery approach” that is apparently convenient in terms of fitting in with how the utilities do things now. Tr. Day 2 PM, 15-16. After an extended cross-examination on the issue, it became apparent that their proposal

would charge default service customers for all energy credits/purchases of exported power, whether from customer-generators on default service or competitive supply (assuming their competitive supplier hasn't opted for their own net metering terms pursuant to RSA 362-A:9, II), while crediting the respective suppliers with revenue for sales based on all instantaneous imports by customer-generators. Tr. Day 2 PM, 16-41. In the meantime, the benefit of power exported directly onto the distribution grid, which in turn is power (kWh) that doesn't have to be purchased and delivered at wholesale over the transmission grid, is to be spread to all suppliers (and hopefully, but not necessarily, their customers) through the process of adjusting retail load obligations to wholesale as Mr. Labreque testified to: "So there's going to be some socialization of that reduction in the overall wholesale load across all suppliers." Tr. Day 2 PM, 39.

Considering that we don't the magnitude of how much power might be instantaneously exported and accounted for in this manner now or in the future, this structure creates a non-transparent and unreasonable and unjustified shifting of costs and benefits between various suppliers and their customers.

In contrast, the approach of the EFC is straight forward and transparent. Tr. Day 1 PM, 80-85. For any given supplier, including for default service, their monthly (and in effect hourly) sales (customer meter imports) would be netted against their credits for customer exports, at equal energy rates, such that their net retail sales, in both kWh and dollars, would match up with their wholesale load obligation, after adjusting for line losses and normal load adjustment factors due to the estimating process, and not confused and complicated with a bunch of credits for exported kWh that aren't allocated to the supplier responsible for serving that load. This approach also comports with ISO New England's approach to only account for net hourly loads at wholesale meter points and the load estimation and reporting process used by Liberty: "To determine the extent to which suppliers are net buyers or sellers on an hourly basis, it is necessary to estimate the hourly aggregate demand for all of the customers served by each supplier." Ex. 82, 2. As a matter of good market design, it makes sense to continue with this

approach absent some compelling reason to change.

## 6. Distribution Credit

The final matter that the City wants to comment on in closing is the issue of the distribution credit for exports. Part of the issue here is caught up in the need to modernize our distribution tariffs so that they send some appropriate price signals as to the impact of adding load (or DG) at times of coincident peaks on the distribution grid, to reflect marginal capacity costs to meet peak loads versus shifting load (or DG) to off-peak times. Whatever the Commission decides in this docket on this matter should be seen as an interim step, subject to refinement with the next iteration of studies coming out of this proceeding and actions to advance Grid Modernization. In its Direct Testimony the City suggested that “a simple interim step . . . would be to simply charge regular distribution rates for any net imports in one month and not give distribution credit (volumetric or in dollars) for net monthly exports.” Ex. 15, 26. The City concurs with those who argue the value of net metered exports to the distribution grid (in isolation) are probably less than 100%, but more than 0% of the retail rate. (See Ex. 15, 22-26, Ex. 60, 13-16.) As explained in cross examination and testimony, based on the limited data available, for customer-generators with systems up to 100 kW, sized to meet most, but not more than, 100% of their annual load, it is likely that most of their annual generation will be offset by consumption within the month of generation, leaving only some minority portion of their annual production as net monthly exports. With monthly netting for distribution charges and credits, that would mean that most of the annual NM production would get full distribution rate credit. Tr. Day 1 PM, 97-109, and Tr. Day 3 PM, 51-53.

All that being said, after hearing all of the evidence and testimony, the City does not disagree with Staff witness Faryniarz’s testimony that “something in the range of 50 percent might minimize the error or the regrets going forward” in next immediate phase of net metering. Tr. Day 3 PM, 114.

Thank you for your attention to this complex and challenging matter.