

Responding Parties
Docket No. DE 22-060

Date Request Received: April 24, 2024
Data Request No. RR-001

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Request from: New Hampshire Public Utilities Commission

Request:

Based on publicly available data, how does the current New Hampshire net metering tariff compare to those in other states?

- a. Summarize California's current net metering tariff and how much, as a percent, the tariff covers of generation, distribution, and transmission. Also summarize how the generation cost is determined (wholesale price or retail price; if retail, how the price is calculated).
- b. Summarize each New England state's net metering tariff and how much, as a percent, each tariff covers generation, distribution, and transmission. Also summarize how the generation cost is determined (wholesale price or retail price; if retail, how is the price determined)
- c. Provide the same data as (b) for Illinois, Florida, Texas, Missouri and any other states the parties would want to include.

Response:

- a) The following response is provided by the witnesses for Clean Energy New Hampshire, as those witnesses have firsthand knowledge of the California net metering tariff and the development thereof. No other parties are privy to information regarding the California net metering tariff.

Effective April 15, 2023, California implemented a net billing tariff (NBT), pursuant to California Public Utilities Commission (CPUC) Decision 22-12-056. This tariff allows solar and solar + storage customers to do the following: (1) serve their own load on-site, offsetting 100% of the volumetric retail rate including generation, transmission, and distribution costs, and (2) export excess power to the grid at an hourly price based on a value stack of avoided costs (the Avoided Cost Calculator or ACC) plus a transition Adder. The ACC values are locked in for nine years and include avoided costs for energy, generation capacity, ancillary services, line losses, costs to meet long-run GHG reduction targets, costs, transmission capacity, distribution capacity, and avoided methane leakage from the state's gas system. Since New Hampshire's current NEM tariff only compensates for avoided energy, transmission, and a small portion of

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distribution costs, the California ACC is more generous by including more categories of avoided costs. The CPUC approved significantly higher Adders for qualifying low-income customers. California has had full AMI for a decade; since 2016, mandatory TOU rates for NEM and NBT customers; and, since 2020, default TOU rates for all customers including residential.

The NBT responds to the specific context of the California market, in terms of solar penetration and the state's current resource needs, which is dramatically different from the New Hampshire context:

- EIA reports that solar supplied 28% of the state's electric generation in 2023.
- California's customers have much greater, more than 10X, penetration than New Hampshire. About 15% of the customers of the three large investor-owned utilities have solar. This includes significant solar penetration among low-income customers. Customer adoption of solar in California was encouraged by earlier and more lucrative forms of net metering in California.

The state's most important near-term need is capacity, including storage, to meet summer evening peaks. Solar provides the primary clean energy resource to fill storage. The NBT is explicitly designed to encourage installation of solar + storage systems, and early indications are that over 50% of NBT systems include storage. In contrast, New Hampshire has not put the same priority on storage capacity as California as a matter of state policy or law.

- b) Please see below for detailed information on the Connecticut and Massachusetts net metering policies and tariff provisions. The detailed information for Massachusetts is provided by Eversource and Unitil because they do business in Massachusetts (Eversource is providing Connecticut for the same reason). As such, these parties have expertise and first-hand familiarity with these states' net metering frameworks and policies. Clean Energy New Hampshire's witnesses also have experience with the New England states' net metering tariffs and provide information below as well as in direct testimony of David Littell pg. 6 Lines 8-15; pg. 11 Lines 5-12; and pg. 12 Line 4 through page 14 line 12. As for the other states referenced in the request, the parties do not have any comparable experience or expertise. None of the parties was privy to the development of net metering in those states, including the development of the current net metering frameworks in any of those states. If the parties were to attempt to provide the information requested there is a high likelihood that salient details would be overlooked and omitted, resulting in inaccurate data. In short, no party

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witnesses are comfortable testifying about complete list of states referenced in the question, except to the extent already provided in this response.

Even if the witnesses were able to comfortably testify to and summarize the net metering provisions that apply to the utilities in the states referenced in the request, summaries of the net metering tariffs as they stand today would not be an apples-to-apples comparison to net metering in New Hampshire. Nor are the current state of the net metering tariffs in Connecticut or Massachusetts. Each state is at a different point in the evolution of their net metering policies, climate and economic development policies, levels of solar penetration, and degrees to which distribution grid load peaks are aligned with solar production, which means that net metering policies are reflective of a culmination of market and regulatory contexts, and should not be evaluated in a vacuum.

Furthermore, several of the states in the request have had robust net metering incentives and levels of compensation for many years, which has led to robust adoption of distributed energy resources (“DER”) and high levels of solar penetration in those states, which has the tendency to cannibalize the value of each new incremental DER addition. High-level solar penetration is a primary driver contributing to lower levels of compensation in other states when compared with New Hampshire. Ultimately, a state’s net metering framework is a network that balances multiple, and sometimes competing, policy interests, and must be viewed in total context for any component part to be fully understood. Summarizing any state’s current net metering tariff does not provide an informative point of comparison to New Hampshire’s current net metering compensation levels, as New Hampshire is not analogous to any of the states listed in the request.

Connecticut

Net metering is currently made available to new distributed generation customers in Connecticut through participation in the Residential Renewable Energy Solutions (“RRES”) and Non-Residential Renewable Energy Solutions (“NRES”) programs, which succeeded Connecticut’s prior net metering program. Eligibility for the RRES program is limited to residential customers with solar PV systems with generating capacity of no more than 25 kW as well as PV systems installed on multi-family affordable housing properties. All other renewable energy projects with generating capacity up to 5,000 kW are eligible for participation in the NRES program.

Both the RRES and NRES programs provide both a “buy-all” option for customers to sell all energy and renewable energy certificates (RECs) produced by an eligible facility at a fixed rate,

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and a “netting” option for customers to sell energy produced by eligible facility that is not consumed by the customer onsite and all RECs produced by the eligible facility. The amount credited for net excess energy under the netting tariff is equal to 100 percent of all retail kilowatt-hour charges for the customer’s rate class, inclusive of the utility Standard Service rate whether a customer is supplied by the utility or a 3rd party supplier. Rates credited for all energy and RECs under buy-all tariffs and rates for all RECs under the netting tariff are set annually by the Connecticut Public Utility Regulatory Authority (“PURA”). The annual rate setting process is intended to establish rates that sustain renewable energy deployment and balance ratepayer costs. Rates for the RRES program are set at levels expected to support rates of return of 9.0-11.0% for investments in solar PV systems. Rates for the NRES program are based upon the results of competitive solicitations for renewable energy.

Buy-all rates available to residential customers in 2024 start at \$0.3189/kWh and may be increased by \$0.055 or \$0.0275/kWh for low-income customers or customers located in an economically distressed community, respectively. Low-income residential customers enrolling in the netting tariff in 2024 are eligible to receive an additional \$0.035/kWh for all RECs and other residential customers located in an economically distressed community are eligible to receive \$0.0175/kWh for RECs. No other residential customers enrolling in the netting tariff in 2024 receive any additional credit for RECs.

Buy-all rates available to non-residential customers through the NRES program in 2024 are \$199.82/MWh for projects with generating capacity up to 200 kW. Rates credited to projects greater than 200 kW up to 5,000 kW are based on values bid in competitive solicitations. Procurement plans approved by PURA include ceiling prices for 2024 of \$188.90/MWh for zero emission resources with generating capacity up to 1,000 kW, \$145.97/MWh for zero emission resources with generating capacity up to 5,000 kW and \$159.00/MWh for low emission resources with generating capacity up to 5,000 kW. Amounts provided for RECs through the NRES program, if any, vary by customer class for projects with generating capacity up to 200 kW and are based on competitive bids for all other projects.

Massachusetts

On February 15, 2024, the Massachusetts Department of Public Utilities (“MA DPU”) promulgating final net metering regulations to implement legislative changes included in Chapter 8 of the Acts of 2021, *An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy* (the “2021 Climate Act”). D.P.U. 21-100, Order Promulgating Final Regulations

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(February 15, 2024).¹ The Massachusetts electric distribution companies, including affiliates of Eversource and Unitil, filed model net metering compliance tariffs and model DG interconnection compliance tariffs in D.P.U. 23-108 and D.P.U. 23-113, respectively, on March 29, 2024. These tariffs remain pending approval. This response reflects Eversource's and Unitil's understanding of how net metering tariffs will be structured for new generation facilities upon implementation of legislative changes, but actual outcomes are subject to DPU actions.

Massachusetts net metering tariffs are available to customers with eligible facilities up to 5,000 kW and will continue to provide varying levels of credit to distributed generation based on system size, customer type and other criteria. The maximum level of net metering credit for net excess generation is equal to 100% of retail kWh charges for basic service, distribution, transmission and transition (equivalent to stranded costs in New Hampshire). This level of credit is generally available to new facilities with generating capacity up to 25 kW, solar facilities up to 1,000 kW that serve onsite load and solar facilities of municipalities or other governmental entities. A reduced market net metering credit equal to 60% of retail kWh charges for basic service, distribution, transmission and transition is available to other new renewable energy resources. Lastly, a credit for excess generation equal to the retail basic service rate is available to hydroelectric facilities up to 2,000 kW.

Additional solar incentive payments are available to Massachusetts customers through the Solar Massachusetts Renewable Target ("SMART") program and tariff. The SMART program is structured to sustain a stable solar market and differentiate compensation to support diverse installation types. The SMART program currently targets total long-term compensation of at least \$0.21473 - \$.25038 per kWh for PV systems up to 25 kW. Community shared solar systems up to 1,000 kW may expect total credit in the range of \$0.14638 - \$0.17116 at this time and total revenues targeted through the SMART program may be further differentiated based upon many factors ranging from income status, parking canopy or rooftop installation, inclusion of battery energy storage systems and other criteria.

New England States

Clean Energy NH provided an overview of all six New England states as laid out in Clean Energy NH's direct testimony of David P. Littell on pages 11-14 (summary NEM in each of the New England states), and is summarized below for ease of reference. Mr. Littell's testimony reflects that each of the other New England states provide much higher levels of compensation

¹ In its Order, the MA DPU stated its intent to open a new rulemaking docket, D.P.U. 23-140, to address further revisions to the net metering regulations pursuant to Chapter 179 of the Acts of 2022, *An Act Driving Clean Energy and Offshore Wind* (the "2022 Clean Energy Act").

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for customer-generators than New Hampshire and tended to, through multiple iterations of net metering tariffs, provide for predictable rates that support distributed resource development over many years for interested customers.

As set forth in Mr. Littell's testimony, Connecticut sets a several rates for PV customers compensation. Connecticut has transitioned from a pure NEM regime to two different distributed solar compensation regimes for residential customers with PV systems up to 25 kW and non-residential customers up to 5,000 kW of PV. PURA sets a rate for a "buy-all" energy and RECs annually which is \$0.3189/kWh in 2024 for residential customers and can be increased for low-income customers or customers in economically distressed area. For non-residential PV customers, the "buy-all" rates start at \$199.82/MWh for projects with generating capacity up to 200 kW. There is a competitive procurement above 200 kW to 5,000 kW for non-residential new system.

The alternative compensation scheme in Connecticut, at the customer's option, provides for "netting" of net excess energy not used onsite and all RECs at a credit equal to the retail kWh charge for that customers rate class. Vermont has a very complex system to ensure solar development away from sensitive areas and provides a blended net metering rate which in 2024 was re-set at \$0.18398/kWh and subject to various "Siting Adjustor Factors" and other factors.

In Massachusetts, customers with eligible PV up to 5,000 kW can qualify net excess generation compensation for up to 100% retail basic service, distribution, transmission on a per kWh basis for PV up to 25 kW, and solar facilities serving onsite local or governmental facilities. A lower net credit is available for other renewable facilities is "based on 60% of the excess kWh generated, as opposed to 100%." Hydro in Massachusetts can net up to 2,000 kW for credit set at retail basic service. The utility description above provides more detail on Massachusetts.

Maine's programs, called Net Energy Billing take two different forms, full NEM for residential and small business customers known as Maine's KWH credit. The KWH credit includes the default service, transmission, and distribution charges. Likewise, Rhode Island provides a full credit for the default service charges, as well as charges for distribution, transmission, and transition, but in Rhode Island, DG customers are always responsible for customer and demand related charges

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Using the same format as the NH summary of NH’s NEM, Maine’s and Rhode Island’s programs are summarized graphically below as they have different compensation levels but similar structure whereas the Connecticut, Massachusetts, and Vermont programs are not structured similarly to New Hampshire’s so do not lend themselves to the same tables for comparison.

Maine (KWH Program)	
Bill Component	Credit or Charge
Demand Charge	Not Applicable
Min. Bill Charge	Charge
Default Service (Energy)	Full Credit
Distribution	Full Credit
Transmission	Full Credit
System Benefits	Charge
Stranded Cost	Charge

Rhode Island	
Bill Component	Credit or Charge
Demand Charge	Charge
Customer Charge	Charge
Default Service (Energy)	Full Credit
Distribution	Full Credit
Transmission	Full Credit
Transition Charge	Full Credit

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For NH Systems less than and equal to 100 kWac

Bill Component	NEM 1.0 (Standard NEM)	NEM 2.0 (Alternative NEM)
Customer Charge	Yes	Yes
Demand Charge (if applicable)	Yes	Yes
Default Service (Energy)	Full Credit	Full Credit
Distribution	Full Credit	25% Credit
Transmission	Full Credit	Full Credit
System Benefits	Full Credit	No Credit
Stranded Cost	Full Credit	No Credit
Storm Recovery	Full Credit	No Credit
Credit Mechanism (end of each billing cycle)	Net kWh Carried Forward	kWh converted to monetary credit. Monetary credit carried forward as a bill credit.

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For NH Systems larger than 100 kW up to 1 MWac

Bill Component	NEM 1.0 (Standard NEM)	NEM 2.0 (Alternative NEM)
Customer Charge	Yes	Yes
Demand Charges	Yes	Yes
Default Service (Energy)	Full Credit	Full Credit
Distribution	No Credit	No Credit
Transmission	No Credit	No Credit
System Benefits	No Credit	No Credit
Stranded Cost	No Credit	No Credit
Storm Recovery	No Credit	No Credit
Credit Mechanism (end of each billing cycle)	Net kWh Carried Forward	kWh converted to monetary credit. Monetary credit carried forward as a bill credit.

The above graphics for New Hampshire NEM compensation can also be found here:
(NHPUC, What is Net Metering, , [Net Metering Tariff Overview 2020](https://www.puc.nh.gov/sustainable%20energy/Net%20Metering/Net_Metering.html), on the web:
https://www.puc.nh.gov/sustainable%20energy/Net%20Metering/Net_Metering.html.)

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Request from: New Hampshire Public Utilities Commission

Request:

For the same states used in (A), summarize how their avoided cost studies align with their current tariffs and whether their tariffs are locational or cover the whole state.

Response:

The parties are unaware of if or how avoided cost studies align or not with the current tariffs in the states referenced. The parties do not have knowledge of or access to this information as the party witnesses are not expert or versed in how the net metering tariffs for the referenced states were developed, except to the extent discussed below.

The Liberty witness can attest to the fact that in Illinois, NEM credits are neither based on avoided cost studies nor locational at present.

Eversource provides the following information. The Connecticut Public Utilities Regulatory Authority ("PURA") considered the draft findings of a joint study completed with the Connecticut Department of Energy and Environmental Protection ("DEEP") on the value of distributed generation resources in its approval of the RRES and NRES programs discussed in response to RR-001. PURA concluded it was not appropriate to incorporate any of the analysis from that draft study into its decision approving the RRES program (Docket No. 20-07-01 Interim Decision, February 10, 2021). It similarly found that the draft study was not relevant to the approved rate structures for the NRES program (Docket No. 20-07-01 Final Decision, June 30, 2021). PURA noted in both decisions that the draft study was helpful in identifying categories of benefits that distributed energy resources provide that the state had yet to quantify and were not currently monetizable, most notably resilience and local economic development benefits and the locational value of distributed energy resources.

Eversource and Unitil provide the following information. In Massachusetts, A Net Metering Task Force oversaw an analysis of the costs and benefits of net metering and solar policies as part of its charter to review the long-term viability of net metering and develop recommendations

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on incentives and programs to support the deployment of solar generation (Massachusetts Net Metering and Solar Task Force Final Report to the Legislature, April 30, 2015). The Net Metering Task Force report was submitted to the Massachusetts Legislature in 2015. Chapter 75 of the Acts of 2016, *An Act Relative to Solar Energy*, was subsequently passed maintaining net metering with certain adjustments and directing the Massachusetts Department of Energy Resources to develop the SMART Program discussed in response to RR-001.

In California, as discussed in response to RR-001, the CPUC maintains a detailed Avoided Cost Calculator that includes a comprehensive value stack of hourly avoided costs for a 30-year forecast period. The ACC is aligned with the state's Integrated Resource Planning process and is updated every two years in a fully litigated CPUC proceeding. The ACC includes values for each of the three major California investor-owned utilities (IOU). The California NBT in place since April 2023 is not locational; each California IOU has a NBT that covers their entire service territory.

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Request from: New Hampshire Public Utilities Commission

Request:

Have any states factored locational marginal pricing into their net metering tariffs?

Response:

The parties understand this question to ask if locational nodal pricing has been incorporated into any state NEM tariffs. The parties are not aware of whether or how marginal pricing may have factored into the development of other states' net metering tariffs and could not testify to or answer questions on this topic, except to the extent listed below.

Energy New Hampshire notes that, as a general policy matter, nodal pricing is implemented for generator compensation in multiple RTO/ISO markets.

The witness for Liberty would note that in Illinois, PJM LMPs are not factored into NEM compensation, not even for those on hourly pricing, where the hourly price charged/credited is the system average LMP.

For Massachusetts and Connecticut, Eversource and Unitil would please refer the Commission to the response to RR-001.

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Request from: New Hampshire Public Utilities Commission

Request:

In the New Hampshire VDER study, what percentage of the value generated accrues to the customer generator and what percentage flows to (non-customer generator) ratepayers?

Response:

The VDER study assesses statewide value from the perspective of the utility system. Therefore the VDER study represents that the value accrues to all customers that support the cost of the electric power system. This response does not characterize the position of any party on the substance of the VDER study, but simply assesses what the VDER study intended to do.

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Request from: New Hampshire Public Utilities Commission

Request:

Would any cross subsidization between customer generators and (non-customer generator) ratepayers be appropriate and acceptable?

Response:

No rate structure recovers from each individual customer the exact cost to serve that customer – cross subsidies are always present. In its approval of the current net metering structure in Docket No. DE 16-576 the Commission concluded that there was “little evidence of *significant* cost-shifting from DG customers to customers without DG” (Order No. 26,029 at 72, emphasis added). The reference to significant cost-shifting suggests that the Commission previously found the relationship between customer generators and (non-customer generator) ratepayers was just and reasonable when approving the compensation level of customer generators to as permitted by RSA 362-A:9 to enable net metering. The standard of “unjust and unreasonable cost shifting” is also explicitly called out in RSA 362-A:9, XVI(a) as something the Commission should consider when developing net metering tariffs, which pretty clearly indicates that some level of cost shifting is warranted to support New Hampshire’s net metering policy.

The parties to this response agree with the Commission’s position in the last net metering docket, which is why the utilities testified that current compensation levels have not demonstrated a significant level of cost shifting, and that any cost shifting that may be present is justified by the policy objectives that net metering compensation sustains, as the parties believe that this is consistent with New Hampshire law.

CENH has presented analysis that indicates there are oversetting cost factors that more than compensate non-NEM customers for any current costs of supporting NEM based on current levels of NEM customers in NH and levels likely in the near future.

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Request from: New Hampshire Public Utilities Commission

Request:

How do the prior studies completed in dockets related to net-metering support the parties' positions in this docket?

Response:

The parties' various positions are informed by the totality of relevant circumstances surrounding net metering and the evolution of the distributed generation ("DG") and clean energy industries as they specifically apply to New Hampshire. That is to say that any decision regarding the compensation level for net metered customer-generators is closely tied to a constellation of characteristics that is temporally specific. Reports from previous dockets, while informative as to the history of past or current compensation levels, are not necessarily indicative of what is appropriate or justified in this docket and for compensation moving forward, so those reports or studies are not necessary or germane to the party positions in this docket.

The Joint Utilities' position is supported by their collective experience operating the electric power system and administering net metering tariffs, as well as the general findings of prior studies. In particular, the initial pre-filed testimony of the Joint Utilities explains that:

.....distributed generation facilities can provide greater benefits than larger generation resources by reducing line losses, lowering peak loads on portions of the distribution system and diversifying energy resources. These benefits are more difficult to objectively quantify and are likely to vary based on resource type and location on the electric power system, but they should be considered in any assessment of the balance of Customer-Generator interests with those of non-net metered customers. (Joint Utility Testimony at 11)

The Joint Utilities' testimony is generally consistent with the results of the New Hampshire Department of Energy's Locational Value of DER Study, conducted pursuant to the Commission's Order in Docket No. 16-576 and which is to be administratively noticed in this docket, which estimated a benefit of capacity avoidance while concluding

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it may range from under \$1/kW to over \$4,000/kW based on location (LVDG Study, Executive Summary at vii). This response does not characterize the position of any party on the substance of the VDER study.

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Request from: New Hampshire Public Utilities Commission

Request:

Is the utility default service rate the appropriate rate to compensate generation for net metering parties? If so, why?

Response:

The Joint Utilities recommended in their Direct Testimony in this docket that the Default Service rate is an appropriate and efficient compensation credit for the electricity supply rate component for excess generation from customer-generators. Please refer to the Direct Testimony of the Joint Utilities at:

Page 10, Lines 3-11

Page 14, Lines 1-5

Please also see the Rebuttal Testimony of the Joint Utilities at Page 17, Lines 5-10. The CENH testimony also supports using the utility default service rate for setting the NEM electricity supply rate component of NEM rates. *See* Testimony of David P. Littell on Behalf of Clean Energy NH, NH PUC Dock. No. DE 22-060 (Dec. 6, 2023), pp. 7, 10, 15- 22, 32-33. 36.

Setting the NEM credit level for electricity supply at the utility default service rate has encouraged the development and expansion of distributed clean energy, and there is no evidence that this level of compensation creates unjust cost shifting. In addition, the DOE VDER study indicates that there is no significant or unjust cost shifting at the current level of compensation.

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Request from: New Hampshire Public Utilities Commission

Request:

How does the avoided cost analysis in the VDER study support each party's position on the appropriate compensation mechanism in the net metering tariff?

Response:

It is the parties' understanding that the avoided costs analysis in the VDER study illustrates the potential sources of value that distributed generation may provide to the electric power system as a whole. It also demonstrates how those potential value sources may not be limited to the wholesale value of energy and may include amounts associated with transmission and distribution, and other values.

Testimony of some parties to this response discusses the VDER study to varying degrees, but ultimately, whatever recommendations appear in the settlement will be the position of the parties to the settlement agreement, not the positions from their direct or rebuttal testimony. The parties to the future settlement agreement can certainly be prepared to discuss the VDER study in relation to the settlement agreement during the hearings.

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Request from: New Hampshire Public Utilities Commission

Request:

If the majority of the energy supply in New Hampshire is supplied through Community Aggregation, will customers on either the incumbent utility's default service or third-party supply be subsidizing Community Aggregation ?

Response:

In New Hampshire, aggregation customers that net meter only receive credit for the transmission and distribution components of the bill – they do not receive the default service compensation credit for supply. If the majority of energy is supplied through community aggregations, total compensation for net metering would decrease significantly. The compensation costs that remain (transmission and distribution) would be paid for by all customers, but the benefits of net metering would still go to the grid, which benefits all customers. The only other costs for municipal aggregations being socialized to all customers are the utilities' costs to comply with the Puc 2200 rules. At this time, it is unknown through what rate mechanism incremental costs of compliance with the Puc 2200 rules will be collected, as this is an open issue in other active dockets. Arguably, those costs to comply with the Puc 2200 rules would be subsidizing municipal aggregation to a degree, as both aggregation and non-aggregation customers will be paying for the costs to support municipal aggregations, but non-aggregation customers receive no benefit from aggregation.

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Request from: New Hampshire Public Utilities Commission

Request:

Is the compensation for customer generators different than municipal hosts or merchant power generators? If so, explain the differences.

Response:

A municipal host is a subset of customer-generators as defined in RSA 362-A:1-a. They are compensated at the same rate as other customer-generators consistent with the Puc 900 rules and the utilities' net metering tariffs.

A merchant power generator that is also a municipal host or other type of customer-generator and participates in net metering will be compensated consistent with the Puc 900 rules.

Compensation for a merchant power generator that is not a municipal host or customer-generator and does not participate in net metering does not receive any compensation through the net metering tariff, and it is unknown at what rate such generators is compensated.

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Request:

For Community Aggregation customers participating in net metering, please describe the dollar flow from the incumbent distribution utility to a net metering customer over a month when i) that customer consumes more than it produces; and ii) when the customer produces more than what it consumes.

Please provide specific examples to illustrate the differences.

Response:

Pursuant to Puc 903.02 any customer participating in net metering, including community aggregation customers, that consumes more than it produces would be assessed:

1. All applicable charges not based on kilowatt-hours, including the customer charge and demand-based charges.
2. All applicable non-bypassable charges based upon the full amount of electricity received from the distribution system without any netting of electricity exports over the billing period.
3. All other applicable charges based upon the net energy consumed over the billing period.

These customers would receive no credit from the utility under the net metering program if the customer consumed more than the customer produced over a given month.

Pursuant to Puc 903.02 any community aggregation customers, as with any other customer on competitive supply, participating in net metering as a small customer-generator that produces more than it consumes would be assessed all applicable charges not based on kilowatt hours and all non-bypassable charges as described above. These customers also receive a monetary bill credit for net electricity exports for the billing period calculated at 25 percent of any distribution charges and 100 percent of transmission charges assessed on a per-kilowatt-hour basis.

Pursuant to Puc 903.02 any community aggregation customers participating in net metering as a large customer-generator that produces more than it consumes would be assessed all applicable charges not based on kilowatt hours and all non-bypassable charges as described above. Large customer-generators in a community aggregation, as with any customer on competitive supply

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and not taking utility default service, would not receive any credit from the incumbent utility for net electricity exports, as large customer-generators are only eligible for the generation/supply portion of the customer bill, and do not receive the transmission and distribution credits that small customer-generators receive.

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Request from: New Hampshire Public Utilities Commission

Request:

Consider a customer generator that is part of group net metering, and the group consumes more electricity than it produces over a month. Compare how that generator is compensated relative to a customer that is not part of group net metering. Assume that the generator has the same production in both situations.

Response:

A customer-generator is compensated the same regardless of whether it is a part of group net metering. How a group host, if it produces more than it consumes over a given month, allocates the credit it receives from the utility and distributes to its members is a determination made by the host and established through agreement between the host and its members. If a group host consumes more than it produces over a month, it receives no compensation.

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Request from: New Hampshire Public Utilities Commission

Request:

If the response to (J) is in the affirmative, please discuss how the responses to (K) and (L) will change.

Response:

The response to J is not in the affirmative.

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Request from: New Hampshire Public Utilities Commission

Request:

Why would the net metering tariff be different for sub 100kW generators, 100kW-1MW generators, and 1-5MW generators?

Response:

The reasons for compensation for projects up to 100 kW differing from those over 100kW was a negotiated term that was a part of confidential settlement negotiations in Docket No. DE 16-576. Ultimately the Commission approved this settlement, finding the differentiation in compensation to be in the public interest. Generators from 1MW to 5MW are not treated differently from generators from 100 kW to 1MW, but to qualify to net meter a facility from 1MW to 5MW the generator must serve as a municipal group net host.

At a high level, there are technical, logistical and policy reasons for differentiating compensation for small customer-generators and large customer-generators. Generally, small facilities are typically designed and have a tendency to serve the load co-located with to the site on which the generation is located, where large customer-generators tend to be more focused on exporting power to the grid for the purpose of serving group net metering members. The latter utilizes grid resources by exporting power, and so the levels of compensation can be reflective of that. This is opposed to a small residential customer-generator, whose generation is more closely matched with their load, which can serve as a factor when determining the level of compensation.

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Request from: New Hampshire Public Utilities Commission

Request:

Summarize the most expensive to least expensive sources of energy for new construction in New Hampshire. In light of this summary, explain whether any incentives are needed for solar power in New Hampshire. If incentives are needed, explain why.

Response:

There are a great number of variables influencing the cost of constructing various forms of new energy sources, and it is not known which should be included in this calculation and analysis. More importantly, the required analysis is a complex undertaking and is not something that any of the parties typically engages in, nor do any of the party witnesses have the requisite knowledge to conduct such an analysis.

To respond to the part of the inquiry asking about whether incentives are needed for solar in light of relative costs for other types of new energy sources, relative cost is not the only consideration when determining whether to incentivize solar development, and so knowing the relative costs may not be necessary. Other policy objectives fostered by incentivizing solar are reflected in the declaration of purpose found in RSA 362-A:1, and whether there is a desire, as supported generally by the New Hampshire General Court to support a competitive energy services sector in New Hampshire. There are multiple ways to value the expense of energy resources: initial capacity costs, lifetime cost models including fuel and O&M, and production costs models are three primary factors to use to compare expense of generation resources. Each of these factors provides valuable insight when assessing resource costs.

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Data Request No. RR-016

Date of Response: July 8, 2024
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Request from: New Hampshire Public Utilities Commission

Request:

Calculate the Net Present Value for solar generators (participants) and non- participants using the proposed net metering tariff. Include any assumptions made in calculating the Net Present Value.

Response:

It is not clear what the question is seeking the Net Present Value of, or how the NPV would be calculated for participants/solar generators versus non-participants, as the NPV would likely be the same irrespective of participants altogether. Regardless, none of the party witnesses have the requisite knowledge to provide a response on this topic.