STATE OF MAINE PUBLIC UTILITIES COMMISSION

PUBLIC UTILITIES COMMISSION Amendments to Net Energy Billing Rule (Chapter 313)	)	**PETITION FOR RECONSIDERATION OF NATURAL RESOURCES COUNCIL OF MAINE, CONSERVATION LAW FOUNDATION, REVISION ENERGY, AND INSOURCE RENEWABLES** March 21, 2017 **Docket No. 2016-00222**

INTRODUCTION

Under the Public Utilities Commission Rules of Practice and Procedure, chapter 110, section 11(D), Natural Resources Council of Maine, Conservation Law Foundation, ReVison Energy, and Insource Renewables, (hereinafter ñPetitionersò) request reconsideration of the Commissionôs Order Adopting Rule and Statement of Factual and Policy Basis (ñOrderò) in Docket No. 2016-00222 issued March 1, 2017, regarding the Net Energy Billing (NEB) Rule.[1] The Petitioners are joined by supportive Maine organizations, businesses and individuals listed at the end of this petition. The Commissionôs amendments to the NEB rules (ñNEB amendmentsò) fail to advance the public interest, in part because they are primarily focused on limiting benefits and values for families, communities and businesses that generate solar power, rather than based on the interest of ratepayers more broadly. The NEB amendments are not based on a sound, objective review of the NEB Rule and are more likely to raise unnecessarily electricity costs for Maine ratepayers without any countervailing benefits. Petitioners request that the Commission grant this Petition for Reconsideration and re-open its rulemaking proceeding to remedy these flaws.[2]

ARGUMENT

I. The NEB Amendments Are Not in the Public Interest.

A. The Purposes of the NEB Amendments are Too Narrow and Exclude Fundamental Issues of Public and Ratepayer Interest.

The Order states that the NEB amendments were focused on ñaddressing [solar] technology cost decreases and reducing cost-shiftingò. Order at 21. These purposes are woefully inadequate to advance the public interest. The Order fails to address how or whether the NEB amendments reduce costs for ratepayers or indeed would achieve any broader regulatory purpose. Worse, in pursuit of these extremely narrow purposes, the Order fails to

[1] *Amendments to Net Energy Billing Rule (Chapter 313)*, Maine Public Utilities Commission, Docket No. 2016-00222, Order (March 1, 2017); *see* 35-A M.R.S. § 3472(1).

[2] Petitioners hereby incorporate by reference in this Petition our comments submitted as part of this rulemaking docket. Failure to include any argument, fact, or issue herein does not constitute a waiver by any of the parties to raise any arguments, facts, or issues on an appeal.

consider whether the NEB amendments could have a net impact that is counter to the public interest.

Fundamentally, the Order limits participation in, and ultimately eliminates, NEB, and, as the Order acknowledges, that will fundamentally limit the growth of distributed solar energy generation in Maine. Order at 11. This purpose is at odds with statutory policy, including:

> When encouraging the development of solar energy generation, the State shall pursue cost-effective developments, policies and programs that advance the following goals:
> é
> C. Ensuring that the production of electricity from solar energy meaningfully contributes to mitigating more costly transmission and distribution investments otherwise needed for system reliability;
> é
> E. *Increasing* the number of businesses and residences using solar technology as an energy resource; and
> F. *Increasing* the State's workforce engaged in the manufacturing and installation of solar technology.
>
> 35-A MRSA §3474 [emphasis added].

There is overwhelming evidence that distributed solar energy generation is an important tool for mitigating transmission and distribution costs, which are born directly by *all* electricity customers and comprise the largest portion of monthly residential electricity bills. The Commissionôs Order entirely fails to consider how the NEB amendments will affect those costs.[3]

The Commissionôs purpose and framework for considering amendments to the NEB Rule was limited to reducing so-called cost-shifting of transmission and distribution rates between customers. The Commission did not even consider what impact its cost-shifting focus would have on transmission and distribution costs. In setting rates, the law directs the Commission to ñgive equivalent consideration to the goals of minimizing costs and minimizing transmission and distribution rates to consumers.ò 35-A MRSA §3153-A. In this Order, the Commission fails to give substantial consideration to either.

Moreover, the Order fails to explain why decreasing costs to install solar is a problem that needs to be addressed in the first place. All else equal, it is undisputable that decreasing technology costs will result in increasing installation of solar energy systems. Given the ratepayer benefits from increasing distributed solar broadly identified by the Commission in its Maine Distributed Valuation Study (Apr. 14, 2015) (ñVOSò) analysis, decreasing technology costs are a boon to both individual solar energy system owners and as well as other ratepayers. The Order attempts to skirt this issue by merely labeling NEB as an ñincentive,ò which it does

[3] Similarly, the Order fails to give sufficient consideration of statutory policy regarding transmission and distribution: ñThe Legislature declares and finds that improvements in transmission and distribution utility rate design and related regulatory programs have great potential for reducing the cost of electric utility services to consumers, for encouraging energy conservation and efficient use of existing facilities and for minimizing the need for expensive new electric transmission capacity.ò 5-A MRSA §3152.

more than a dozen times. Order at 5, 6, 9, 10, 14, 15. Whether NEB is an incentive may be a matter of semantic dispute; there should be no dispute that distributed solar energy generation is a resource that affects electricity markets and grids in important ways. The Commission should reconsider its Order because it has not considered these impacts of the NEB amendments on the public interest.

B. The NEB Amendments are Likely to Raise Electricity Costs Without Providing any Countervailing Benefit.

In late 2015, the Commission sought and received assistance from the National Renewable Energy Labs to project that NEB under the status quo would result in approximately 150 MW of distributed solar energy generation by 2021.[4] The Commissionôs adoption of the NEB amendments will undoubtedly reduce that projected level of generation by Maine homeowners, communities and businesses that use NEB to properly size their installation and offset its capital costs.

When the Commission conducted its VOS analysis in late 2014, showing that distributed solar reduced certain ratepayer costs.[5] Specifically it found that each marginal kilowatt-hour of production would reduce transmission costs by 1.4 cents in the ñfirst-yearò and 1.6 cents on a levelized basis over the long-term, and would reduce market prices for energy by 0.9 cents in the first-year and 6.6 cents on a levelized basis over the long-term[6]. VOS at 5 and 6. The NEB amendments will slow the penetration of distributed solar and almost certainly forego the projected savings identified in the Commissionôs own report.

The Orderôs discussion of the VOS analysis is deeply flawed, as set forth below.. in the Order has multiple flaws. For example, one is a factual misstatement that the first-year ñmonetizeableò benefits were calculated to be 9 cents/kwh. Order at 8. In fact, they total 9.9 cents/kwh[7]. VOS at 5. As the Commission is aware, the levelized value of financial over 25 years was 17.5 cents/kwh. Some of this value will be foregone under the NEB amendments, at the expense of ratepayers as a whole. The Order correctly observes that long-term values are highly dependent on assumptions about market conditions in the future. Order at 8. However this same caution should be extended with regard to future technology costs, which is the primary basis for the Commissionôs proposed phase down of net metering credits.

C. The NEB Amendments Impose Unnecessary New Metering and Billing Costs.

[4] Pieter Gagnon and Ben Sigrin. ñDistributed PV Adoption in Maine through 2021.ò NREL. November 6, 2015. Powerpoint presentation entered into Docket 2015-00218.

[5] VOS

[6] We understand that the Commission may now dispute its own findings on these values. However, as described below, the Commission made no attempt to quantify the forgone benefits of distributed solar, nor the purported ratepayer benefits from eliminating so-called cost-shifting, the net of which might generally be seen as a ratepayer impact.

[7] The Order left out market price response. Market price response is not an attribute that can be sold in any market, but nor can avoided transmission. The term ñmonetizeableò is therefore somewhat vagueð all of the values in the study were expressed in dollar terms or ñmonetizedò. We understand that some values correspond to financial components of rates and others to environmental values. Both market price response and avoided transmission, and the other values cited in the Order at 8, are financial components of rates.

The NEB amendments require new NEB customers to meter their gross generation so that it can be netted against electricity consumed for the transmission and distribution portion of their bill. The effect of this change is to levy a transmission and distribution fee or penalty on power that is generated and consumed behind the customerôs primary meter. Below, Petitioners argue that this is a violation of the right to self-generate. Additionally, the NEB amendments impose significant new metering costs which are themselves unnecessary burdens on ratepayers as a whole.

The provision will require additional metering equipment to measure gross output, at a likely cost of several hundred dollars per participant. If each existing NEB customer had been required to have a meter on generation, the cost could exceed $1 million, for example. At the same time, the NEB amendments state that customers may not ordinarily be billed for this equipment, therefore implying that ratepayers as a whole would bear these costs. The Order provides no clear rationale for this unreasonable requirement.

The NEB amendments also establish a phase-out of NEB credits from the retail rate to Standard Offer rates over a 10-year period, with new customers in each year receiving a fixed percentage for a 15-year period. We are not aware of any comments or arguments in the record in support of this approach. In addition to the concern of Petitioners stated above that this reduction will slow the penetration of distributed solar generation, there is widespread concern that this approach would require a complex and likely expensive billing arrangement. It will require utilities to sort NEB customers into up to 11 different categories of crediting, for a period of approximately 25 years, at a great deal of cost to all electricity customers.[8] It is even possible that the new costs all ratepayers will have to pay for this complicated billing scheme will outweigh any purported savings the rule would achieve. The Commission should reconsider its Order after it has attempted to determine what those costs would be.

D. The Commission Should Clarify that Customers May Continue to Choose a Rolling 12-Month NEB Credit Cycle.

The Commission has long recognized that the annualized net metering concept under the Chapter 313 rules would be frustrated if the utility required customers to use all credits within a given 12-month contract period that did not match the variability of certain renewable resources:

> Mr. Bertl raises a valid concern that, depending on the net billing anniversary date, the intent of the annualized approach could be frustrated. This could occur, for example, if the net billing contract begins after the high hydropower output months. The result is

[8] Indeed, the Commission repeated CMPôs claim that lifting the arbitrary limit on the number of community solar accounts would ñnegatively affect its billing system performanceò (although the Order fails to mention that CMP further recommended raising the limit to 200 instead of eliminating it.) Order at 21. Any billing complexity from expanding participation in community solar farms is minimal compared to that contemplated in the NEB Amendments, with the costs and complexity to be borne by ratepayers as a whole.

that there are no ñcreditsò to be used to offset usage during the low production months at the beginning of the 12-month period, and the customer would have limited ability to take advantage of the high output months that would occur near the end of the period.

HYDROTRICITY, Request for Waiver Under Section 4 Of Chapter 313, No. 2001-027, Advisory Opinion, at 6 (April 3, 2001). To avoid this result, the Commission has interpreted the rules to allow a NEB customer to either choose its ñanniversary dateò or to use a 12-month rolling methodology for individual months in which credits accumulated in any given month could be used to offset usage over the succeeding 12 months. SUNGEN SOLAR CENTER LLC, *Request for Commission Investigation into Chapter 313 Implementation,* No. 2011-316, Order at 3 (Feb. 6, 2012) (ñôWe therefore interpret Chapter 313 to allow a customer to choose either approach for implementation of the annualized net billing methodology,ôò *quoting* HYDROTRICITY at 7.)

In the portion of the NEB amendments relevant to the determinations above, the Commission has changed the wording of former §3(E)(3) (ñover a 12-month periodò) to new language in new section § 3(I)(3) (ñwithin a given 12-month periodò). The Commission offered no explanation for this change at any stage in the 2016-00222 rulemaking. It is Petitionersô understanding that the Commission did not intend the new language to change its longstanding and well-settled precedent. To avoid confusion or further litigation, Petitioners ask the Commission to confirm that net energy billing customers may continue ñto choose either the anniversary date or the individual month rolling methodology.ò SUNGEN at 3.

II. The NEB Amendments Constitute Unjust Discrimination and Violate Customer Rights to Self-Generation.

The NEB amendments require NEB customers to meter their gross generation so that it can be netted against electricity consumed from the grid for the transmission and distribution portion of their bill. The Order entirely fails to justify this change or provide any regulatory principle that it is based on. The Order argues that this change does not constitute an exit fee and that NEB is optional. Order at 18. While Petitioners reject those arguments below, neither of Commissionôs arguments constitute a positive rationale for this extreme change, which gives the appearance of arbitrariness. Even the Commissionôs arguments about NEB customers not paying for incurred transmission and distribution costs when they are credited for exports do not provide a basis for interfering in a customerôs generation or usage behind the meter.

Rates for utility service subject to the jurisdiction of the Commission must be just and reasonable. 35-A M.R.S. § 301. Implicit in the concept of just and reasonable rates is the requirement that rates and charges not be unjustly discriminatory. Unjust discrimination in the context of utility rates and charges includes charging a rate to one customer or group of customers that is ñhigher than that charged by the same utility for the same service or service of similar value and cost rendered to other users or consumers.ò 35-A M.R.S. § 1304.

The NEB amendments include provisions that result in NEB customers being charged for transmission and distribution service for energy that they have supplied to themselves that never enters the utility grid. The Order asserts that these charges are necessary because NEB customers are still consuming transmission and distribution service and it is therefore necessary to charge customers for such service to avoid ñcost shifting.ò Order at 6-7. This finding lacks

factual support and the rates and charges that would be imposed by the NEB amendments are therefore unjust and unreasonable.

Specifically, the Commission has made no inquiry into whether the consumption of NEB customers is adequate to support the cost of serving them. Rather, it assumes that their gross consumption is the proper measure for collecting costs. However, it is even possible that NEB customers use a larger amount of electricity than average customers because they may pursue additional technologies that rely on electricity.

Further, other similarly situated customers may reduce their consumption by installing energy efficient equipment or by fuel switching. Similarly, industrial users who generate power behind the meter by using waste products also reduce their consumption. Under the logic of ñcost shifting,ò these customers should be charged additional rates to reflect the lost revenue resulting from such decisions. Singling out NEB customers for such charges results in rates that are ñhigher than that charged by the same utility for the same service or service of similar value and cost rendered to other users or consumers,ò 35-A M.R.S. § 1304, and therefore results in rates that are unjust and unreasonable.

The Orderôs finding with respect to cost shifting is also inconsistent with prior Commission determinations. Maine has a long history of self-generation, both in practice and in regulation, and multiple statutes protect the ability of customers to produce and consume their own power without penalty or interference. In its 1996 order on industry restructuring, the Commission explicitly found that the loss of revenue due to customer self-generation is a risk borne by utilities for which they are compensated in their rates of return.[9]

> Not all costs that become unrecoverable are "stranded" by retail competition. Customers may reduce or even eliminate electricity usage by self-generating, fuel switching, production cutbacks, energy conservation, and bypassing the utility's system entirely. All these activities result in fewer revenues available to the utility to pay the fixed costs of operations. These customer options, however, exist under current regulation as much as they would after retail competition begins.

The Orderôs finding with respect to cost shifting effectively reverses this fundamental finding adopted by the Commission in the Restructuring Plan.

Finally, the Orderôs finding with respect to ñcost shiftingò and related determinations with respect to calculation of transmission and distribution charges violates the statutory prohibition against imposing exit fees. 35-A M.R.S. § 3209(3) provides:

> 3. Exit fees. A customer who significantly *reduces or eliminates consumption of electricity due to self-generation*, conversion to an alternative fuel or demand-side management may not be assessed an exit or reentry *fee in any form for the reduction or elimination of consumption* or reestablishment of service with a transmission and distribution utility.

[9] *Re Electric Utility Industry Restructuring*, Docket No. 1995-462, Report and Recommended Plan (December 31, 1996) (the "Restructuring Plan").

(Emphasis supplied). The Orderôs determination to impose transmission and distribution charges on energy that customers have supplied to themselves that never enters the utility grid is unambiguously a fee for reduction in use due to self-generation.

Prior to the Legislatureôs enactment of § 3209(3), the Commission addressed the policy reasons for not allowing exit fees in its Restructuring Plan.[10]

> The Commission does not believe exit fees are either practical or appropriate. Proponents of exit fees claimed that the demand for electricity of particular customers has caused utilities to incur certain costs on their behalf, and that these same customers should pay these costs. This claim is doubtful. Power purchases are rarely customer-specific. Moreover, if the idea is to match cost-recovery with cost-causation, some daunting questions emerge. Should customers have to be on the system any particular length of time before any exit fee would apply? Should customers who entered the system last year be required to pay an exit fee if they leave the system next year? If so, should the amount of the exit fee be the same as for a customer that has been on the system for 30 years? Should exit fees apply to customers that enter the system in the future? None of these questions has a felicitous answer.
>
> Exit fees could also adversely affect Maine's business climate. If exit fees applied to businesses who were utility customers on a specific date, only newer businesses could switch power suppliers without paying an exit fee. If exit fees applied to new customers, it could dissuade businesses from entering the State. What business would move to Maine if its flexibility to move in the future were so constrained?
>
> Exit fees are an extraordinary remedy. That approach might be justified where its absence would result in either extreme financial stress on the utility or unacceptable rate increases for utility ratepayers. An exit fee or similar rate design should not be adopted without a substantial demonstration of ratepayer harm.

In addition to the NEB amendmentsô plain violation of statute with respect to this issue, the same policy considerations exist here with respect to imposition of transmission and distribution charges on energy customers have supplied to themselves that never enters the utility grid. The Commission should reject the aspect of the NEB amendments that impose transmission and distribution charges on gross energy as being unjustly discriminatory and a violation of the prohibition on exit fees.

Identifying NEB as ñvoluntaryò is not sufficiently persuasive as to justify the NEB amendments. Order at 18. Simply buying power from the grid is likewise ñvoluntary,ò but that does not give utilities or the Commission free license to charge any fee whatsoever or excise burdensome or arbitrary regulatory requirements. Under the NEB amendments, pre-existing NEB customers who already made investments in self-generation capacity will be subject to the gross metering approach after their

[10] Id.

grandfathering time period expires. For these customers, NEB is not ñvoluntaryò in any practical or fair way.

Furthermore, NEB is a mechanism that allows customers to size generation in an economically efficient manner and reduce their load on the electricity grid (including on an instantaneous basis, not just on an annualized basis), which reduces well-understood cost drives for the grid and electricity markets, as described above.

III. The NEB Amendments Are Not Based on Sufficient Evidence or Sound Economic Ideas.

A. The NEB Amendments are Not Based on Evidence of Meaningful Cost-Shifting.

The Order asserts that there can be ñno doubtò that cost-shift is occurring and that ñthe actual amount of this cost-shift can be determined with reasonable accuracy.ò Order at 7. However, the Commission has presented no factual evidence of this shift and made no attempt to quantify it.

As the Commission is aware, rates never reflect a perfect alignment of the costs that individual customers incur on the system. Customers in a given rate class pay the same rates regardless of geography, for example, even though the costs incurred by rural ratepayers are significantly higher than those incurred by urban ratepayers. This long-standing and widely recognized ñcost-shiftò is deemed acceptable by regulators in Maine and elsewhere because the cost-shift is likely relatively modest and any remedy worse than the disease. Setting aside the Commissionôs failure to include any claim of cost-shift in a broader context of NEBôs total ratepayer impact (see below), even the utilitiesô purported amount of cost-shifting appears to be inconsequential. The Commissionôs decision to single-out this form of cost-shifting is arbitrary, especially lacking any effort to quantify it or evaluate the potential negative impacts of the remedy.

In addition, the Commission conflates cost-shifting from NEB with lost revenue from decreased utility sales as a result of self-generation. This not only leads to a significantly exaggerated measure of any cost-shift, but provides a flawed basis upon which to consider NEB from a regulatory perspective. Put simply, reduced demand for electricity is not a cost, indeed it is a savings, so it canôt be called a cost-shift.

In its description of cost-shifting, the Order describes how NEB customers use the grid when they are importing or exporting energy from the grid. Order at 6-7. However, the Commission would presumably agree that when they are importing electricity, they are subject to the same rates as any other customer and no cost-shifting is occurring. We understand that the Commissionôs concern is with regard to the value at which *exports* should be credited, and whether providing transmission and distribution credits for exports improperly exempts NEB customers from some of those costs. Therefore the proper way to assess the costs this might shift to other ratepayers is to measure the value of the transmission and distribution portion of the credits granted to NEB customers for their exports. From an empirical and regulatory

perspective, this amount is distinct from the revenue the utilities lose from reduced sales and it is arbitrary to conflate them as one cost.

The cost of providing net metering credits as a form of lost revenue, *could* be ñdetermined with reasonable accuracy,ò but to our knowledge it is has not been disclosed by the utilities. Instead, the utilities appear to base calculations of the cost of net metering on lost revenues from gross generation by NEB customers, even that generation consumed behind the meter. Not only is this not reflective of the cost of NEB itself, this amount is not so easy to determine accurately and requires the utilities to make assumptions about patterns of generation and consumption behind the meter.

If lost revenue from self-generation of electricity is labeled a ñcost-shiftò, then so should that from energy efficiency and every form of energy conservation, as well as from any self-generation not relying on NEB.[11] It implies that customers who consume less electricity from the grid have some load obligation which, if they fail to consume, burdens others. It begs the question of what is the baseline amount of load that the utilities or other ratepayers are ñowedò by NEB customers, which would be impossible to establish in any rational way.

Finally, in its Order the Commission restates CMPôs claim of lost revenue from NEB of $1.8 million, but nowhere in the rulemaking or preceding ñreviewò of NEB in Docket 2016-00218 did the Commission subject this claim to any meaningful, transparent evaluation. Failure to do so was certainly arbitrary and capricious and the Commission should reconsider its decision after doing so in order to more plainly reveal the conflation of lost revenue from NEB crediting with that from decreased sales, allowing the public and interested parties to examine the evidence and methodology behind this claim.

B. The NEB Amendments are Not Based on Any Test of Ratepayer Impact.

There is nothing in the Order to suggest that ratepayers will be better off on the whole as a result of the NEB amendments. The Order discusses some categories of costs and benefits related to NEB, but does not propose any approach for weighing those.

The treatment of benefits from NEB and distributed solar is flawed. The Commission improperly dismisses the use of avoided cost or value of solar analysis as ñof limited use in a program like NEB that requires ratepayer-funded incentives.ò Order at 9. This is circular reasoning. NEB shouldnôt be labeled an ñincentiveò if it reduces (or avoids) more costs than it incurs. The Orderôs assertion that ñratepayer funded incentives are evaluated based on costsò is confusing. Ratepayer funded incentives should be evaluated based on costs and benefits. For example, in 2012,

[11] The Commission claims that NEB should not be equated with self-generation. Order at 18. However if the Commission believes NEB is completely distinct from self-generation, then the lost-revenue from self-generation on the part of NEB customers cannot be considered a cost-shift resulting from NEB.

when the Commission evaluated the Renewable Portfolio Standard, which the Commission presumably considers to be a ratepayer-funded incentive, it asked London Economics to evaluate both costs and benefits of the policy.

The Order incorrectly states that avoided costs are not relevant in related regulatory contexts like energy efficiency. Order at 9. In Maine, energy efficiency *is* funded based on an avoided cost methodology. Rebates for individual efficient appliances are set by Efficiency Maine Trust based on fluctuating market economics, but the determination of how much ratepayers should pay for efficiency rebates (in aggregate) is based *solely* on the costs that can be avoided.[12] Those costs include avoided transmission and distribution, capacity, market price response and most of the other components of the VOSð determining the specific avoided costs is determined in an adjudicatory process. While there are important differences between NEB and energy efficiency, the Commission has erred significantly by completely dismissing any consideration of avoided costs or the VOS.

The Order states that ñthe avoided cost methodology is not helpful in cost of service ratemaking because it does not refer to the known specific costs of concern in designing rates.ò Order at 9. Petitioners contend that, in fact, the NEB amendments do not refer to known specific costs either. The Commission did not assess the cost of serving NEB customers.

With regard to distributed solar technology costs, we fail to see how these costs are particularly relevant. The rate impact of NEB does not vary as a result of the cost of solar installation. The cost of solar will affect the volume or growth of NEB uptake (an economic response that the Commission has failed to consider) but it will not affect whether NEB imposes a cost or benefit on ratepayers. Some of the Petitioners commented during the rulemaking about arbitrariness of the proposed phase down of NEB credits. That was not because we failed to observe the Commissionôs linkage with technology cost reductions; rather the phase out is arbitrary from a *regulatory basis* because it is not based in any test of ratepayer benefit.

The Commission also failed to consider whether perpetuating the cap on the number of customers participating in a community solar farm was in the public interest. The 10-person limit is arbitrary and neither the Commission nor any other party has argued otherwise. CMP recommended a cap of 200 customers. The Order claims that community solar is a policy matter that lawmakers should address. Order at 21. However the limit is entirely a creation of Commission rules and in no way reflects legislative direction. In addition, the Commission appears comfortable making very fundamental changes to the structure of NEB that Petitioners and others argued should be left to lawmakers. The Commissionôs adoption of proposed amendments that slow the growth of solar while rejecting proposed amendments that might expand it are further evidence of the one-sided nature of the decision.

C. The NEB Amendments are Based on Flawed Economic Ideas.

[12] In principle, Efficiency Maine could offer rebates up to the ñvalueò for customers as a whole (i.e. the avoided cost), if doing so would not lead to undue free ridership.

The Order incorrectly states that under NEB there is no incentive for solar providers to reduce costs as installation costs decrease. Order at 5. This assertion grossly mischaracterizes the market for solar installation products and services, which are subject to competitive market forces completely unrelated to the value of NEB credits. Unlike regulated monopolies with which the Commission is very familiar, solar suppliers and installers compete with each other, resulting in lower prices for consumers. The Order states that solar installers base their prices ñon what local markets will bear, which is not necessarily in line with actual costs.ò Order at 5. According to basic economics, in a functioning market, prices *will* reflect actual costs.

The Commissionôs stated goal of reducing NEB credits is to ñmaintain a rate of return on investment.ò Order at 15. But the Commissionôs function is not generally to regulate rates of return outside of the monopoly framework. Furthermore, by holding return on investment steady, you will see steady state changes in penetration, as opposed to increasing rates of penetration as returns improve. As argued above, improving economics for installing distributed solar does not impose a cost on ratepayers and indeed is likely to yield a benefit in the form of reduced grid and market costs.

Therefore the Commission does not need to amend NEB in order to foster competition and drive down costs to install solar, nor is it inherently proper to try to regulate profits for installers or consumers as opposed to seeking the lowest costs for ratepayers as a whole.

The Order states that costs of the transmission and distribution system are incurred regardless of whether a NEB customer pays them in full or not. Order at 7. However, transmission and distribution costs are not fixedð if only they were! According to the Commissionôs most recent annual report, transmission and distribution rates have risen 80% in the last decade. If transmission and distribution costs were fixed, then there would be no justification for demand charges. Instead, any cost of service analysis, including the most recent one by CMP, demonstrates that significant portions of the marginal cost of transmission and distribution are linked to annual peak demand. As the Commissionôs VOS identified in considerable detail, distributed solar on the margin reduces annual peak demand. The Commissionôs failure to recognize these basic principles in this proceeding leads to the wrong price signals from the point of view of economic efficiency and thus to higher long-term costs for ratepayers.

IV. The NEB Amendments Fail to Take Advantage of Technological and Market Opportunities to Modernize Grid Infrastructure and Increase Economic Efficiency.

In issuing this Order, the Commission has failed to move Maine toward the objectives of a ñsmarter gridò, with modern rate design and integration of distributed energy resources. Indeed, by slowing the deployment of distributed generation, penalizing self-generation, and advancing regulatory changes on distributed generation without any analysis of how they impact rates or grid costs, the

Commission has violated legislative policy with regard to grid modernization.

The legislature established a broad set of policies with regard to a ñsmart gridò, including:

> It is the policy of the State to promote in a timely and responsible manner, with consideration of all relevant factors, the development, implementation, availability and use of smart grid functions and associated infrastructure, technology and applications in the State through:
>
> A. Increased use of digital information and control technology to improve the reliability, security and efficiency of the electric system;
>
> B. Deployment and integration into the electric system of renewable capacity resources, as defined in section 3210-C, subsection 1, paragraph E, that are interconnected to the electric grid at a voltage level less than 69 kilovolts;
> é
> 35-A MRSA §3143(3)

The NEB amendments make *no* use of the smart meters that were installed, at considerable expense, across the entire state. Many years later, ratepayers are still waiting for utilities and the Commission to provide most of the promised benefits smart meters were meant to provide (indeed, the rule requires installation of *additional* meters, adding further metering costs without regard to benefits). The NEB amendments use no hourly metering, give no consideration to time of use rates, provide no valuation of grid services, and make no attempt to locate distributed generation resources for maximum advantage.[13]

The NEB amendments send the wrong price signals for distributed generation, consumption and storage. For example, the Order states that the monetized first-year benefits of solar were calculated in the VOS as ñonly $0.09 per kwh.ò Order at 8. (As mentioned above, the value is actually $0.099 per kwh.) The NEB amendments would ultimately pay Standard Offer rates for solar, currently 6.7 cents/kwh. We lack a clear supply curve for distributed solar, however it is not economically efficient to only pay for distributed solar that costs 6.7 cents when it would be valuable to consumers to pay up to 9.9 cents.

RECONSIDERATION REQUESTS

For all the foregoing reasons, we request that the Commission grant this Petition and reconsider its Order and Rule as follows:

1. Order that Chapter 313 NEB rules be reverted to those that existed prior to the recent amendments.

2. Conduct a complete analysis of the costs and benefits of net metering from a

[13] The Order only cites location-dependent value of distributed generation as a justification for ignoring locational value completely. Order at 9.

ratepayer perspective.

3. Pending the completion of the current legislative session, re-open a rulemaking to consider changes to NEB that are consistent with the public interest and address the arguments made above.

Respectfully submitted,

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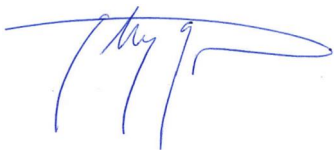

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The following organizations and businesses join in support of this petition:

American Lung Association of the Northeast

City of Belfast Energy Committee

Coastal Enterprises, Inc.

Crystal Spring Farm Community Solar Association

Goggin Energy

Heliotropic Technologies

Industrial Energy Consumers Group

Maine Audubon

Maine Conservation Voters

Maine Public Health Association

Maine Small Business Coalition

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