**BEFORE THE**

**MAINE PUBLIC UTILITIES COMMISSION**

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| **Maine Public Utilities Commission Follow-On Proceeding to Further Investigate Stranded Cost Rate Design** | ) | **Docket No. 2024-00137** |

# Direct Testimony of

# Eric Borden and Caroline Palmer

## On Behalf of

## The Maine Office of the Public Advocate

## October 1, 2024

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## I. INTRODUCTION AND QUALIFICATIONS

**Q Please state your name, title, and employer.**

A **Mr. Borden:** My name is Eric Borden. I am a Principal Associate at Synapse Energy Economics, Inc. ("Synapse"), located at 485 Massachusetts Avenue, Suite 3, Cambridge, MA 02139.

**Ms. Palmer**: My name is Caroline Palmer. I am a Principal Associate at Synapse, located at 485 Massachusetts Avenue, Suite 3, Cambridge, MA 02139.

**Q Please describe Synapse Energy Economics, Inc.**

A Synapse is a research and consulting firm specializing in electricity and gas industry regulation, planning, and analysis. Our work covers a range of issues, including economic and technical assessments of demand-side and supply-side energy resources; energy efficiency policies and programs; integrated resource planning; electricity market modeling and assessment; renewable resource technologies and policies; and climate change strategies. Synapse works for a wide range of clients, including attorneys general, offices of consumer advocates, public utility commissions, environmental advocates, the U.S. Environmental Protection Agency, U.S. Department of Energy, U.S. Department of Justice, the Federal Trade Commission, and the National Association of Regulatory Utility Commissioners. Synapse has over 40 professional staff with extensive experience in the electricity industry.

**Q Please summarize your professional and educational experience.**

A **Mr. Borden:** I have over 10 years of experience in the energy industry and joined Synapse in 2022. Since joining Synapse I have testified on utility regulatory issues, including cost recovery, cost allocation, and rate design in several states including Maine, Maryland, New Hampshire, South Carolina, Illinois, California, and Nova Scotia (Canada). From 2015 to 2022, I was a Senior Energy Expert at The Utility Reform Network ("TURN") in California, where I served as an expert witness in numerous proceedings before the California Public Utilities Commission. I have a Bachelor of Science in finance from Washington University in St. Louis and a Master of Arts in public affairs from the University of Texas at Austin. My resume is attached as Exhibit EB-CP-1.

**Ms. Palmer**: I have worked in energy policy and regulation for 8 years. . From 2019 to 2024, when I joined Synapse, I worked at Strategen Consulting, where I provided expert witness and consulting services on behalf of public interest clients in regulatory proceedings. I have sponsored testimony before the Maine Public Utilities Commission, the Massachusetts Department of Public Utilities, the Oklahoma Corporation Commission, and the North Carolina Utilities Commission, and have assisted with testimonies and regulatory analyses in numerous additional jurisdictions. The issues covered in these cases include marginal and embedded cost-of-service studies, revenue apportionment, rate design, load management, decoupling, DER interconnection and compensation, EV infrastructure investments, and pilot frameworks. Before joining Strategen in 2019, I conducted a Fulbright Research Fellowship in Greece and supported

clean energy policy consulting at Meister Consultants Group (now Cadmus). I hold a Master of Public Policy from the Goldman School at UC Berkeley and a Bachelor of Science from Georgetown University. My resume is attached as Exhibit EB-CP-2.

**Q On whose behalf are you testifying in this case?**

A We are testifying on behalf of the Office of the Public Advocate (OPA).

**Q What is the purpose of your testimony?**

A The purpose of our testimony is to address Commission questions from its Notice of Investigation (NOI) in Docket number 2024-00137 on July 2, 2024.

**Q Does your testimony propose specific recommendations for rate design changes related to the stranded cost fixed charge?**

A In keeping with the conceptual nature of the Commission's NOI questions, OPA provides a number of high-level recommendations with illustrative examples that illuminate a range of impacts for affected customers. For example, OPA recommends including more kilowatt hours (kWh) in the minimum charge for the residential class, and we provide a range of figures and bill impacts of this change on various low-usage customers. This gives the Commission important information about customer impacts as it considers implementing this and other rate design recommendations.

Rate design necessarily involves tradeoffs between groups and subsets of customers who benefit or are harmed to varying degrees by a given change. Our testimony seeks to help illuminate those tradeoffs while providing tangible actions for the Commission to explore

as it seeks to address some of the effects of current methodologies for collecting stranded costs.

**Q Was your testimony prepared by you or under your direction?**

A Yes. Our testimony was prepared by us or under our direct supervision and control.

## II. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

**Q Please summarize your testimony and related recommendations.**

A The following summarizes the key findings and recommendations of this testimony.

- The use of customer charges as the primary means to collect lost revenues associated with net energy billing (NEB) and certain other stranded costs has led to inequitable allocation of cost responsibilities across multiple rate classes, including residential and small commercial classes, as a result of the disparate size of customers within rate classes.

- To address the above finding, the Commission should primarily consider inter- and intra-class bill impacts as it evaluates alternative rate designs. Identifying inequities should be a central goal of these bill impact analyses, including consideration of equity for lower income and other low-usage residential customers (see Questions 1 and 2).

- Assuming non-bypassable volumetric charges comport with statute, it should be feasible for T&D utilities to implement them. Collecting stranded costs through a

non-bypassable volumetric charge is an important potential solution to ensure NEB participants pay for the costs they have been allocated (see Question 3).

- While creating a "station service" class may be reasonable and is unlikely to materially affect other customers, it is a relatively narrow solution for a limited group of customers. Namely, it does not address inequities for low-usage residential and small general service customers (see Question 4).

- OPA recommends consideration of including more kWh in the minimum charge for the residential class, and provides bill impacts for low-usage customers. The Commission should also consider implementing a differentiated fixed charge between low- and high-usage customers for both the residential and small general service (SGS) classes (see Question 6).

- The Commission should consider collecting significantly more – if not all – stranded costs volumetrically based on the volumetric nature of the problem the NEB-related policy goals are intended to solve, as well as the volumetric nature of stranded cost causation and allocation (see Question 7).

## III. RESPONSES TO NOTICE OF INVESTIGATION QUESTIONS

***Question 1: A description of the types of data and analyses needed to evaluate the alternative rate designs presented in this case.***

**Q What data and analyses are needed to evaluate the alternative rate designs presented in this case?**

A One of the most important analyses for comparing rate designs is a bill impact analysis to determine how the magnitude of customer bill increases or decreases differs across customers. The data needed for a bill impact analysis includes, but is not limited to, clear definitions of customer classes, utilities' rate design and billing models, and customer class billing determinants (such as number of customers and average usage) to assess inter-class bill impacts. Additionally, more granular usage information (such as the distribution of the number of customers by consumption level) within a rate class is helpful to assess intra-class bill impacts.

***Question 2: A description of the equity considerations and criteria for determining fairness, including specific metrics that clearly identify benchmarks for comparison.***

**Q Describe equity considerations and criteria for determining fairness in this case.**

A Identifying inequities should be a central goal of the bill impact analyses described in Question 1, but doing so comprehensively requires more than a typical inter-class bill analysis. For example, an intra-class analysis should focus on identifying the distribution of bill impacts across customers of different consumption levels within a class to determine how bill impacts vary. For instance, even a cursory review of the commercial class rate schedules of Versant Power and CMP indicates that the range of customer size within these classes is substantial. The CMP Medium General Service rate schedules

apply to customers with demands ranging from 20 kW to 400 kW. Versant Power's Medium Power Rate – Primary for its Bangor Hydro District applies to customers with demands ranging from 25 kW to 500 kW. These rates are generally mandatory for customers within these demand ranges. Thus, in both cases, customers that are twenty times smaller than the largest customer in the class pay the same demand charge as the largest customer. Applying the same customer charge to customers with such divergent sizes makes sense for recovery of metering and billing costs from customers taking service at the same voltage through equivalent meters regardless of size. However, doing so with respect to collection of lost revenues associated with net energy billing and certain other stranded costs raises significant equity concerns, because of the disparity in the size of customers taking service within these and other commercial classes.

Similar equity considerations apply to the residential class. As with the commercial classes, the range of consumption and demand level by customers within these classes varies widely. A single person living alone in a one bedroom apartment will generally consume dramatically less electricity than a family living in a 2,500 square foot home. Increasing the fixed charge results in a larger bill impact for low-usage customers than for high-usage customers on a percentage basis. In contrast, an increase in volumetric rates will increase bills for high-usage customers more than low-usage customers. This is particularly important because, as discussed in more detail below, data demonstrates that low-income customers tend to consume less electricity than high-income customers. Thus, a primary equity consideration involves identifying low-income residential customers and their specific bill impacts, to the extent possible. In this case, the criteria

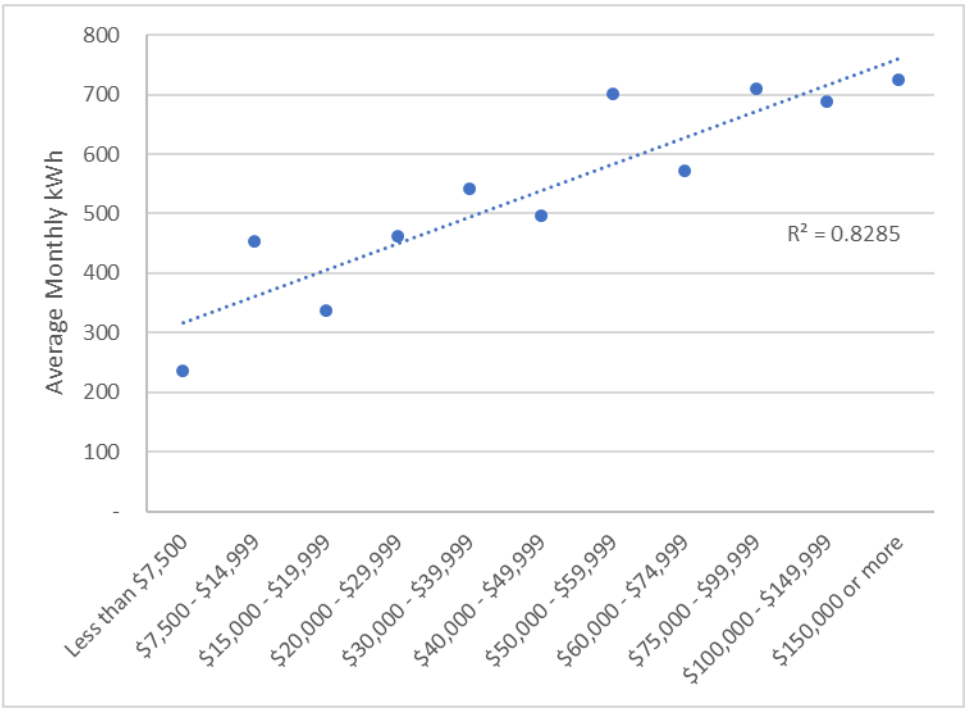
for determining fairness for low-income populations could include ensuring that the rate design does not exacerbate existing energy burden levels, or other relevant energy equity criteria.

**Q Please expand on the equity consideration involving impacts to low-usage and low-income customers.**

A As demonstrated by Witness Borden in OPA's stranded cost rate design testimony in Case No. 2023-00230, higher fixed charges disproportionately burden the low-usage customers in a rate class when there are significant differences in usage across customers in the class.[1] For instance, a recent study by the U.S. Energy Information Administration clearly indicates a positive correlation between income and electricity consumption, as depicted in Figure 1, below. The figure highlights the relationship between electricity usage and income, with an increase in monthly electricity consumption as income increases. This correlation is very strong, with an R-squared value of 0.83. (A perfect correlation between usage and income would have an R-squared value of 1.0, while an absence of correlation would have an R-squared value of zero.)

[1] Table 2 and Figure 3, Direct Testimony of Whited and Borden. Docket No. 2023-00230.

**Figure 1. Average monthly electricity consumption in Maine by income group**




*Source: Synapse analysis of U.S. Energy Information Administration Residential Energy Consumption Survey (2020).*

Not only do the data above show that usage generally increases with income, the data also indicate that households with gross incomes of $150,000 or more consume nearly twice as much electricity as households with gross incomes of less than $30,000.[2]

Rate design that increases bills for low-usage customers are likely to burden lower income customers more than relatively higher income customers. In other words, because of the correlation between electricity usage and income within the residential class, low-income customers with the highest energy burdens will experience the highest percentage

[2] U.S. EIA. 2020 RECS Survey Data. https://www.eia.gov/consumption/residential/data/2020/index.php?view=microdata.

bill increases as a result of utilities recovering stranded costs through fixed charges as opposed to volumetric rates. Disproportionately increasing residential lower-income customer bills without providing any tools to mitigate such increases worsens equity. For lower-usage general service customers, including stranded costs in the fixed charge, also results in substantial bill increases and unfairly burdens these customers.

***Question 3: Whether designating a stranded cost volumetric charge as "non-usage" or "non-bypassable" for the purposes of billing, and thus making such a charge ineligible to be offset by NEB netting or credits, comports with applicable statutes and rules and can be implemented in the T&Ds billing systems, and, further, address how such a designation would impact customer bills.***

**Q Does designating a "non-bypassable" stranded cost volumetric charge ineligible to be offset by NEB netting or credits comport with applicable statutes & rules?**

A We are not legal experts. The policy analysis that we provide in the following pages assumes that the described "non-bypassable" charge comports with statute. Counsel for the OPA will address these legal issues in written comments or briefs at the appropriate time in this proceeding.

**Q Can such a "non-bypassable" charge be implemented in the T&D utilities' billing systems?**

A We will assess the transmission and distribution utilities' response regarding the current capability of their billing systems. However, it seems that implementing such a charge should be feasible for both NEB programs:

- The current Tariff Rate provides a financial credit on the bill of participating customers; therefore, if the financial credit excluded certain "non-usage" or "non-bypassable" costs, such costs could not be offset by NEB credits.

- Adjusting the kWh Credit Program would require assessing a charge that cannot be avoided by kWh credits. Neighboring utilities have implemented such a structure: Eversource New Hampshire assesses small customer-generators a Stranded Cost Recovery Charge and System Benefits Charge "based on the full amount of their electricity imports without any netting of exports during the billing period" [3] (i.e. it is non-bypassable).

**Q Why might the T&D utilities designate a "non-bypassable" stranded cost volumetric charge that is ineligible to be offset by NEB netting or credits?**

A Such a designation is an important potential solution to a problem when collecting revenues through volumetric charges that the Commission has identified as inequitable, namely the need to ensure NEB customers pay at least their allotted share of costs based on the methodology established by the Commission.[4] In the past, the Commission accomplished this entirely through fixed charges. However, sanctioning a structure under which NEB participants pay for stranded costs through unavoidable volumetric charges could evolve the current rate design to address both the issue of stranded cost recovery and issues of equity and fairness associated with fixed cost recovery (see Question 7).

[3] Eversource New Hampshire Electric Delivery Rate Tariff. Original Page 24A-B. Accessed at https://www.eversource.com/content/residential/about/doing-business-with-us/interconnections/new-hampshire/new-hampshire-tariffs-rules.

[4] Maine Public Utilities Commission. Order in Docket No. 2022-00160, Investigation of Stranded Cost Rate Design. April 21, 2023. At 14.

**Q How would such a designation impact customer bills?**

We believe that the bill impacts for both NEB and non-NEB customers of moving from fixed cost recovery to volumetric cost recovery by designating certain charges as non-bypassable will be the same as those illustrated in our answer to Question 7 below.

***Question 4: Whether creating a "Station Service" rate class is a reasonable resolution. Please address implications of creating a "Station Service" rate class, including the likely impact on the allocation of costs (stranded costs or otherwise), distribution of customers and billing units, and customer bills. Please also address the feasibility of implementing a new rate class within utilities' respective billing systems.***

**Q Could it be reasonable to create a "Station Service" rate class?**

A Yes, creating a "Station Service" rate class could be reasonable, though it would be important to determine the full scope and impacts of such a change, such as if the new rate class would also carry over to other utility processes, including cost of service and rate design, and the impacts to all customer classes if the change extends beyond stranded cost calculations. From the perspective of CMP's residential and small commercial customers, adding a station service rate class does not impact their stranded cost revenue allocation or rate design.[5]

**Q Does creating a "Station Service" rate class address broad customer concerns?**

A No. Adding the new rate class poses a solution for a limited group of customers, namely the generator intervenors. However, those customers are not the only ones for whom their current rate class encompasses a wide range of usage levels, and therefore for whom the

[5] According to CMP's hypothetical stranded cost calculation in which "service station" customers (accounts that have "out" generation) are treated as a separate service type. *See* OPA-001-005 Attachment 1.

low-usage customers face a disproportionate bill increase. Adding a "Station Service" rate class may address this problem for those customers, but it does nothing to address the problem for others, such as lower-income residential and small commercial customers. We address potential solutions to this problem for the residential and small general service classes below.

***Question 5: Whether rate classes should be further aggregated for the purpose of stranded cost allocation.***

**Q Does OPA have a position on this issue?**

A Not at this time. OPA may respond to party proposals regarding aggregation of classes at a future time.

***Question 6: The feasibility and implications of designing and implementing a "tiered" fixed charge for any rate class (for example, a structure that includes a base fixed charge and an increased fixed charge determined by kWh consumption ranges).***

**Q If stranded costs continue to be collected via fixed charges, does OPA support a stranded cost fixed charge based on size or kWh consumption designed to address equity concerns?**

A Yes. It is important that the Commission consider fairness and equity as it deliberates changes to rate design. As described in Question 2, for the residential class, low-usage customers are most negatively impacted by higher fixed charges and these same customers tend to be lower income (particularly non-NEB customers), creating significant equity concerns.[6] For commercial or industrial classes, the large diversity of

[6] Docket No. 2023-00230, Direct Testimony of Whited and Borden on behalf of OPA, November 22, 2023, pp. 6-9.

customers within a single class imposes disparate impacts across customers, with the most severe impacts of higher fixed charges experienced by the smallest customers, as Witness Borden previously discussed in testimony submitted in Docket No. 2023-000230.[7] For example, in the small commercial class, 37 percent of customers use just 150 kWh per month on average, while the largest customers use over 10,000 kWh.[8] The stranded cost portion of the electric bill for a small commercial customer that uses 150 kWh per month is about 24 percent; on the other hand, the average small commercial customer uses about 840 kWh and pays around 2 percent of the bill towards the stranded cost fixed charge.[9] Stratifying fixed charges by customer size would help to rectify the inequity of treating these customers the same for purposes of stranded cost revenue collection.

**Q What do you recommend for the residential class?**

A OPA provides two recommendations for the Commission's consideration. First, the Commission should include a higher number of kWh in the minimum charge. Witness Borden introduced this recommendation in previous testimony.[10] Second, the

[7] Docket No. 2023-00230, Direct Testimony of Whited and Borden on behalf of OPA, November 22, 2023, pp. 13-14. While we calculated inequitable impacts for the Medium General Service class, similar dynamics exist for small commercial customers.
[8] MREA-001-010_Attachment 1, tab "SGS."
[9] Calculated from CMP data request OPA-001-004, Attachment 1, tab "Stranded Cost Rates;" MREA-001-010_Attachment 1; CMP SGS tariff, https://www.cmpco.com/documents/40117/115962041/sgs_07.01.24.pdf/50fd1107-9915-92d1-51da-fce5796722c3?t=1719514532679.
[10] Docket No. 2023-00230, Direct Testimony of Whited and Borden on behalf of OPA, November 22, 2023, pp. 9-13.

Commission should also consider adopting fixed charges that increase by usage level for non-NEB customers.

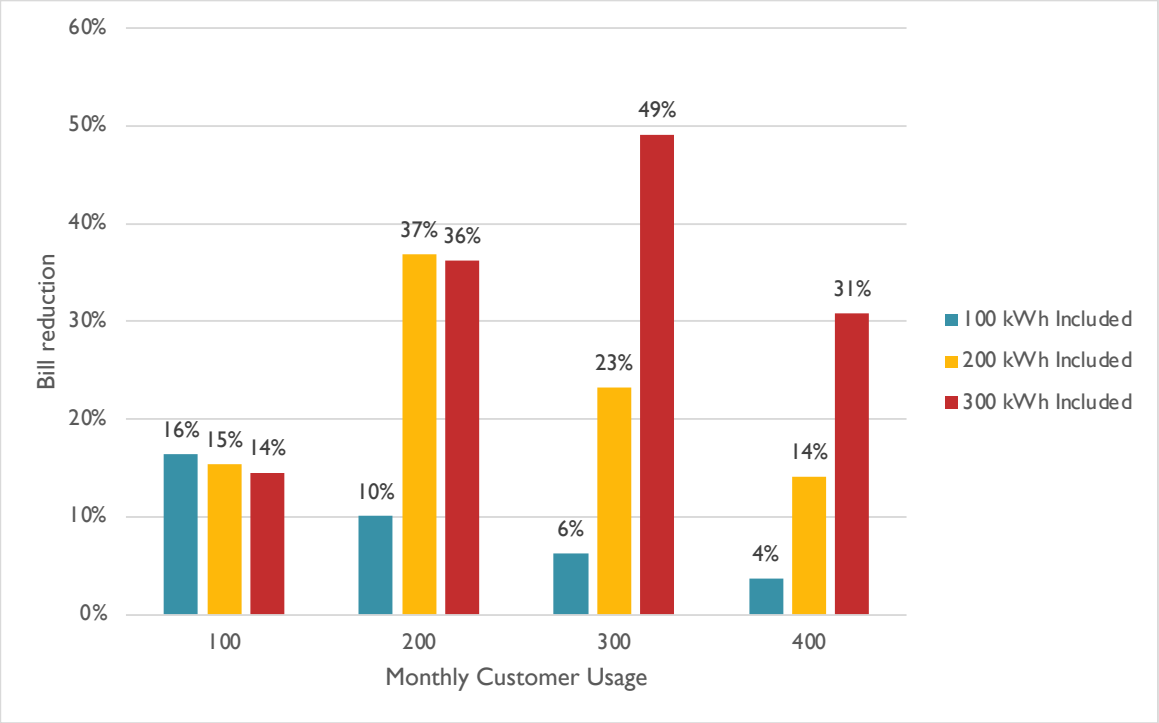
**Q What are the bill impacts of including more kWh in the minimum charge?**

A Figure 2 shows the average bill impact, compared to current levels of stranded cost revenue collection, for the distribution portion of CMP's residential rate (Rate A). Bill impacts are shown when including a higher number of kWh in the fixed portion of the rate - 100, 200, and 300 - compared with current bills which include 50 kWh. Bill reductions are shown as positive percentages. The x-axis shows customers with average monthly usage from 100 to 400 kWh (the average residential customer uses 534 kWh per month).[11] The blue, yellow, and red bars indicate the bill reduction for these customers from including 100, 200, and 300 kWh in the minimum charge, respectively.[12]

Per Figure 2, increasing the number of kWh included in the fixed charge reduces average bills for low-usage residential consumption levels, all else constant. As for the uncollected revenue requirement resulting from including more kWh in the fixed portion of the bill, we recover it in the volumetric charge, with the exception of the stranded cost line item, where the fixed charge increases.[13]

[11] MREA-001-010_Attachment 1.
[12] Calculated from data request OPA-001-007 Attachment 1 and OPA-001-006 Attachment 1. [13] This allows us to isolate the impact of this change from collecting more stranded costs volumetrically. CMP provided the change in the fixed portion of the rate when including more kWh in OPA-001-007 Attachment 1.
[13] This allows us to isolate the impact of this change from collecting more stranded costs volumetrically. CMP provided the change in the fixed portion of the rate when including more kWh in OPA-001-007 Attachment 1.

**Figure 2. CMP residential bill reductions by monthly usage level relative to 50 kWh minimum bill**




**Q Describe your other recommendation, to increase fixed charges by usage level for non-NEB residential customers.**

Lowering fixed charges for the lowest-usage non-NEB customers, who tend to be low-income and who are most negatively impacted by the current methodology of collecting stranded costs, would alleviate some of the disproportionate burden these customers face.

For example, if 20 percent of the stranded cost revenue requirement is allocated to low usage (illustrated in Table 1 as up to 350 kWh per month on average) customers, and the remaining 80 percent to higher usage customers, low-usage customers would see a significant reduction in costs paid for the stranded cost fixed charge. Higher usage customers would incur higher fixed charges.

In this example, low-usage customers see a 58 percent decrease in the fixed charge, while higher usage (greater than 350 kWh) see a 51 percent increase in the stranded cost fixed charge, relative to no differentiation in the fixed charge by usage.[14]

**Table 1. Residential (CMP Rate A) Stranded Cost Fixed Charge Adjusted by Usage**

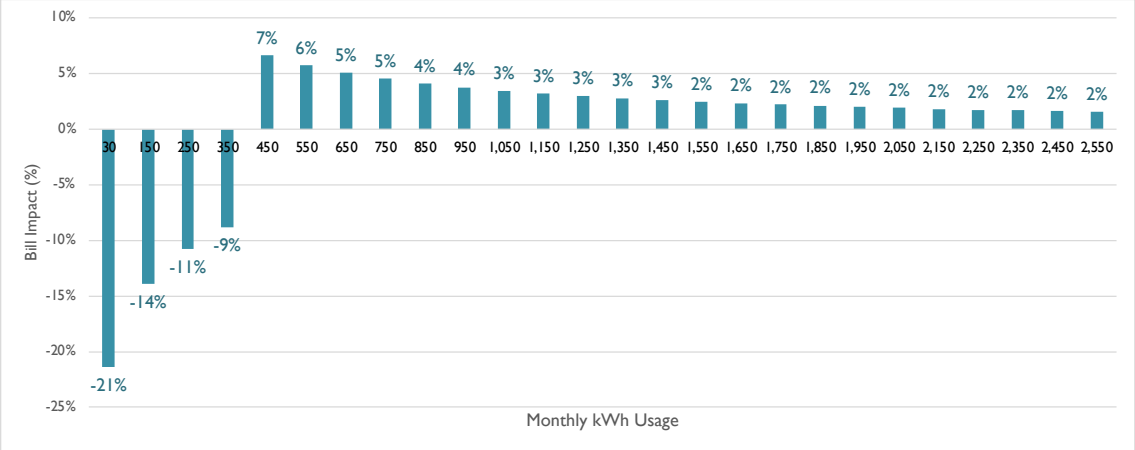
| | No Adjustment | Adjusted by Usage ($) | Difference (%) |
|---|---|---|---|
| Low Usage (<= 350 kWh) | $9 | $4 | -58% |
| High Usage (> 350 kWh) | $9 | $14 | 51% |

**Q What are the bill impacts of adjusting stranded cost fixed charges by usage?**

A The bill impacts for high- and low-usage customers are less pronounced than the percentage figures shown above. This is because the stranded cost fixed charge only comprises around 34 percent of the fixed costs paid by residential customers (CMP Rate A).[15] Additionally, high usage customer bills are less affected by changes in the fixed charge. Figure 3 shows the bill impact for customers by usage level assuming the fixed charges in the table above for the distribution portion of the bill.

[14] Calculated with data from CMP data request OPA-001-006 Attachment 1 and OPA-001-007 Attachment 1.
[15] CMP data request OPA-001-006, Attachment 1.

**Figure 3. Residential Bill Impact if Stranded Cost Fixed Charge is Stratified by Usage Level**




These recommendations, if implemented in a manner that does not result in significant bill increases for most customers and with adequate customer education, will help improve some of the most regressive and unfair residential class impacts of the current fixed charge rate design for collecting stranded costs. Collecting more of the stranded cost revenue requirement volumetrically will also be critical to help achieve more equitable outcomes (see OPA's response to Question 7).

**Q How should NEB customers be treated under this proposal?**

A It's important to note that NEB customers likely appear as "low usage" customers in the calculations provided above since generation is netted from load on a monthly basis; CMP was unable to isolate these customers in discovery.[16] NEB customers should be eligible for the usage-adjusted fixed charge based on their gross load (i.e., load before the netting of solar production). The utilities may need to estimate gross load in order to

[16] CMP data request OPA-001-001.

appropriately assign these customers a "low usage" or "high usage" fixed charge based on the thresholds determined by the Commission.[17]

**Q What implementation concerns should the Commission consider regarding this proposal?**

A We acknowledge that, as with any change in rate design, implementation of this proposal requires additional considerations. The Commission will need to address several implementation considerations, including how often to update a customer's energy charge (e.g., every rate case), whether to determine usage bins based on a rolling average or something else, how often to update customer fixed charges based on changes in usage, customer education, and other elements..

**Q What are your recommendations to improve stranded cost rate design for the commercial classes?**

A Given the large range of customer sizes in commercial classes, small commercial customers are particularly negatively impacted by the current methodology for stranded cost rate design. In previous testimony, Synapse recommended collecting stranded cost revenues through the demand charge, which would automatically adjust stranded cost

[17] Synapse is not aware of all data available to the utility to do this estimation, and it could be accomplished a number of ways. For example, utilities know the size of systems through interconnection agreements, which could be used to estimate total production of facilities. Alternatively, load before the system is installed could be used as a proxy, or a factor that grosses up export amounts by assumed self-consumption could be used as reasonable approximations of gross load.

revenue collection for size of the customer as measured by non-coincident peak demand.[18]

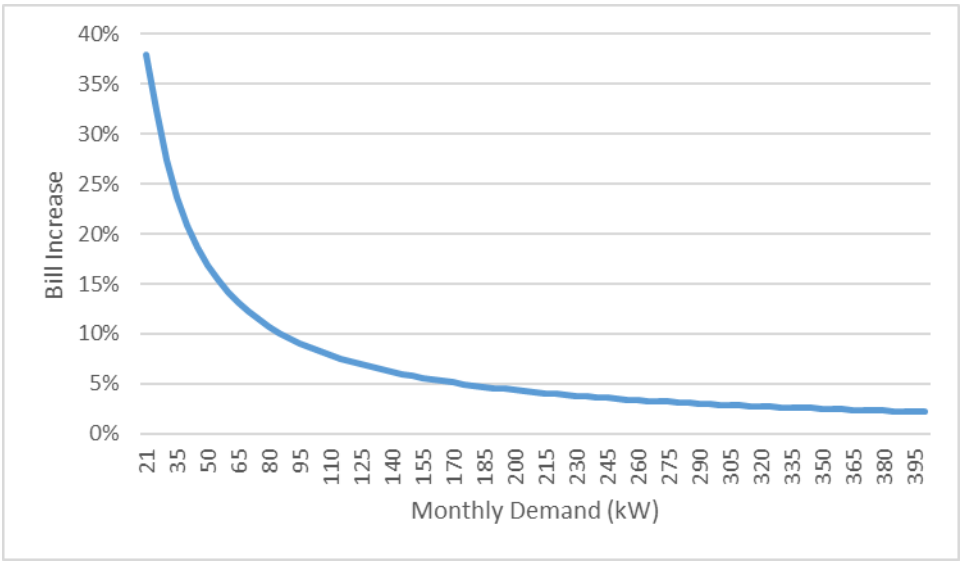
**Q Please summarize the Testimony of Ms. Whited and Mr. Borden on this subject in Docket No. 2023-00230.**

A The disparity between small and larger commercial customers was highlighted by the fixed charge changes set for the CMP commercial customers in 2023. The medium general service class for Central Maine Power ranges from 20kW to 400kW. The fixed charge for MGS customers increased by more than $150 from July 2022 to July 2023, due primarily to stranded costs. This represented an increase of only $0.39/kW for a customer with 400 kW of demand, but an increase of over $7.00/kW for a customer with 21 kW of demand. In terms of bill impacts, this represents a bill increase of $1,850 (or nearly 40 percent) for MGS customers with 21 kW of demand.

The figure below illustrates the percent bill increases in 2023 due to the increased fixed charge for an MGS customer with a 30 percent load factor at various levels of demand. Customers with relatively low demand (less than 100 kW) experience bill increases of ranging from 10 percent to 38 percent, while the bill increases for high demand customers (250 kW or more) total only 2 or 3 percent.

[18] Docket No. 2023-00230, Direct Testimony of Whited and Borden on behalf of OPA, November 22, 2023, pp. 13-14.

**Figure 4. Bill impacts for MGS customers**




**Q Do you have any additional recommendations to those made in previous testimony?**

A A similar methodology could be used as discussed above for residential customers whereby the fixed charge differs based on the size of the customer. This could be accomplished according to kWh usage bands (as above) or the maximum annual non-coincident peak demand (kW) because this data is readily available.

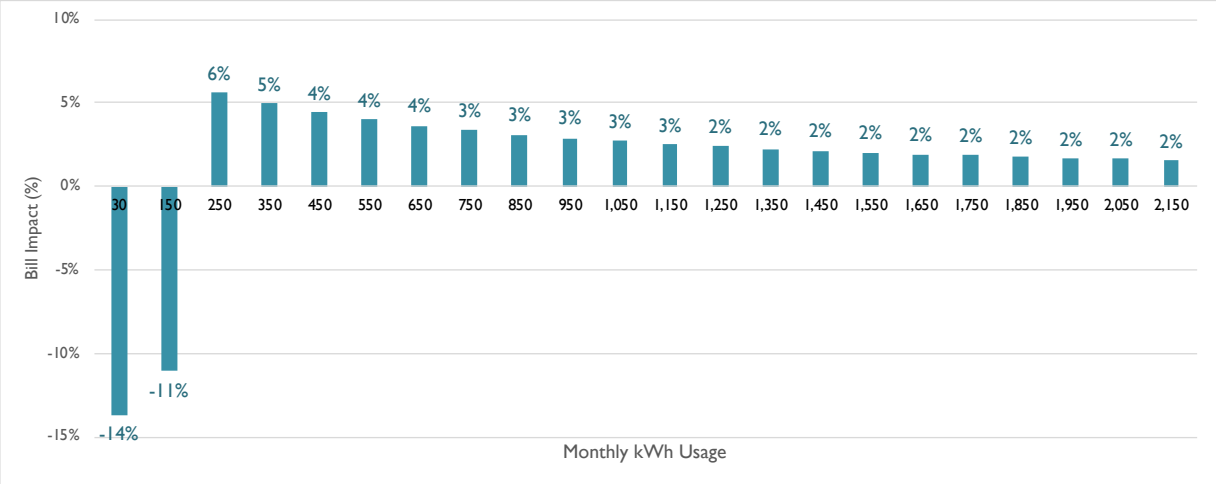
For example, if 20 percent of stranded cost revenue requirement is collected by customers who use up to 150 kWh per month, these relatively low-usage, small commercial customers can save significantly on their bills due to a lower stranded cost fixed charge.[19]

[19] Calculated from CMP data request OPA-001-004, Attachment 1, tab "Stranded Cost Rates;" MREA-001-010_Attachment 1; CMP SGS tariff, https://www.cmpco.com/documents/40117/115962041/sgs_07.01.24.pdf/50fd1107-9915-92d1-51da-fce5796722c3?t=1719514532679.

**Table 2. SGS Stranded Cost Fixed Charges by Usage**

| | No Adjustment | Adjusted by Usage ($) | Difference (%) |
|---|---|---|---|
| Low Usage (<=150 kWh) | $13 | $7 | -46% |
| High Usage (> 150 kWh) | $13 | $17 | 27% |

**Figure 5. SGS Bill Impact Difference if Fixed Charge is Differentiated by Usage Level**




In this example, low-usage customers who use up to a monthly average usage of 150 kWh would save more than 10 percent on the distribution portion of their bill; customer bills for higher usage customers would go up by about one to six percent.[20]

***Question 7: Whether and to what extent certain stranded costs should be recovered through both a fixed and volumetric charge. For example, are there additional policy considerations or do certain program benefits accrue in such a way that recovering a small portion of stranded costs volumetrically is preferable? Please address the rationale, how the allocation between volumetric and fixed charges would be***

[20] Thirty-six percent of SGS customers use up to 150 kWh on average every month; 30 percent from 250 to 650 kWh; and about 34 percent above 650 kWh. Therefore, around 80 percent of SGS customers would benefit or receive a small increase from this illustrative proposal. See CMP data request MREA-001-010_Attachment 1.

***determined, and how this would affect rate classes and customer bills relative to the current stranded cost allocations.***

**Q Why did the Commission decide to collect stranded costs through fixed charges?**

A For NEB costs, the Commission reasoned that "recovering NEB stranded costs through a fixed charge ensures that all customers, including NEB program participants, pay a portion of stranded costs."[21] The Commission also reasoned that the benefits of NEB projects are unrelated to the consumption of electricity, and that fixed charges promote electrification.[22]

For non-NEB costs, the Commission ultimately decided that "because all post-restructuring costs recovered through the stranded cost mechanism result from legislative policy, there is no reason to treat them differently than post-restructuring NEB costs."[23]

**Q Should certain stranded cost revenue requirements be collected volumetrically?**

A Yes, as long as NEB customers cannot bypass stranded cost collection by netting volumetric charges with distributed generation exports (see Question 3). The Commission should revisit volumetric recovery of stranded costs. Equity and fairness considerations alone, discussed above, warrant an increase in collection of stranded cost revenue requirement through volumetric charges. Further, certain stranded costs are incurred in a manner where volumetric recovery is reasonable based on cost causation.

[21] Order in Docket No. 2022-00160, p. 14.
[22] Order in Docket No. 2022-00160, p. 14.
[23] Order in Docket No. 2023-00230, p. 1.

**Q What are the state policy goals that the NEB program is intended to address?**

A The policy goals most relevant to the NEB program are as follows:

- Climate Change: Chapter 3-A of Title 38 establishes greenhouse gas emissions reduction targets for the state, including reducing annual greenhouse gas emissions to at least 45% below the 1990 levels by 2030.

- Renewable Portfolio Standard: Title 35-A, Section 3210 governs Maine's renewable portfolio standard (RPS), which seeks to "encourage the generation of electricity from renewable and efficient sources."

- Solar Generation: The Maine Solar Energy Act, 35-A M.R.S. § 3472 *et. seq*. advances the goals of "[e]nsuring that solar electricity generation, along with electricity generation from other renewable energy technologies, meaningfully contributes to the generation capacity of the State through increasing private investment in solar capacity in the State."

**Q Are these policy goals, and the costs of meeting them, related to volumetric energy consumption?**

A Yes. These policy goals directly or indirectly target the reduction of greenhouse gas emissions through reducing fossil fuel combustion. Because our electricity system is not yet decarbonized, increasing electricity consumption generally results in increased greenhouse gas emissions. Increased electricity consumption also results in the need to purchase or generate additional renewable energy certificates (RECs) to meet the state's

renewable portfolio standard. Thus, electricity consumption is the primary driver of these NEB-related policy goals and the costs of such initiatives.

**Q If electricity consumption is the primary driver of these state policy goals and thus the costs of meeting them, is it reasonable to recover costs associated with the NEB program through volumetric rates?**

A Yes. Customers who consume more electricity are generally responsible for imposing more costs on the system related to greenhouse gas mitigation policies. To the extent climate policy goals are the driving factor behind this program, higher usage customers should bear more of the cost responsibility.

**Q The NEB stranded costs are related to electric distribution company "lost revenues." These lost revenues refer to the standard offer, transmission, and distribution costs that were not recovered from NEB customers, and are not necessarily related to the specific policy goals listed above. Please address this.**

A The underlying purpose of the NEB program is to address the state policy goals listed above, which are primarily related to fossil fuel combustion, and thus electricity consumption (unless that electricity consumption is associated with beneficial electrification in which a customer switches from fossil fuels to electricity). However, even if viewed through the lens of recovering "stranded" lost revenue costs, the underlying costs are still more related to electricity consumption than to the number of customers. Because electricity consumption and demand are correlated, customers with higher electricity consumption generally contribute more to transmission and distribution costs than customers with lower electricity consumption.

**Q Has the Commission recognized the challenge of determining volumetric cost causation for stranded costs?**

A Yes. In its order in Case No. 2022-00160, the Commission observed that "while NEB-related stranded costs may be created principally on a volumetric basis – as those distributed generation projects produce energy – the benefits of such projects to ratepayers are not a function of the consumption of electricity by ratepayers."[24]

**Q Please comment on the relationship between NEB costs and benefits.**

A. The Commission is correct that changes in ratepayers' electricity consumption are unlikely to directly impact the volumetric creation of most benefits from distributed generation, given that overall ratepayer consumption does not directly impact how customers size their NEB system or the system's performance. However, the focus on the ratepayer benefits of NEB projects for informing cost recovery is misplaced, because the costs and benefits of the program are not currently related. In other words, *the costs of NEB projects to ratepayers are not a function of the benefits.* Instead, NEB costs are based on the NEB programs' compensation mechanism formulas, which were set at the volumetric rate, rather than avoided cost or another metric intended to reflect the value of the resources. Therefore, recovery of the program's costs need not be dictated by the program's benefits.

[24] Maine Public Utilities Commission. Order in Docket No. 2022-00160, *Investigation of Stranded Cost Rate Design*. April 21, 2023. At 14.

**Q Does the Commission's statement on NEB-related stranded costs support volumetric cost recovery?**

A Yes. As the Commission notes, most of the costs of the NEB programs are attributable to volumetric rate components (e.g., standard offer, transmission, and distribution) that are already collected volumetrically based on established rate design practices.[25] Given that the lost revenues from NEB compensation are based on volumetric rate components, stranded cost recovery from ratepayers could reasonably follow the volumetric rate design precedent already in place for those components.

**Q Do other circumstances support volumetric cost recovery for NEB stranded costs?**

A Yes. Given that the Commission has directed utilities to allocate these costs to customer classes on the basis of energy, it would be both consistent and reasonable for the utilities to also collect the costs on that basis (i.e., volumetrically).

Finally, regarding the Commission's original motivation for fixed charge recovery (i.e., the need to recover NEB stranded costs from all customers, including NEB program participants), the introduction of a non-bypassable charge mechanism, as discussed in Question 3, for collecting the volumetric stranded costs discussed here, would address cost recovery in a more equitable manner.

[25] The lost revenues from the NEB kWh Credit program are calculated by multiplying the NEB kWh by the distribution T&D kWh price for the respective rate class. *See* CMP's March 29, 2024, Stranded Cost Filing in Case No. 2024-00015. Similarly, the lost revenues from the NEB Tariff Rate program are a function of the standard-offer service rate and the transmission and distribution rate. *See* 35-A M.R.S. § 3209-B(5)(A-1).

**Q Do any non-NEB stranded costs accrue volumetrically?**

A Yes. Long-term power purchase agreements (PPAs) procured to comply with Maine's Renewable Portfolio Standard (RPS) are directly correlated with customer load. This is because Maine's RPS requirements are calculated as a percentage of retail sales.[26] If load (energy use) decreases, less energy from PPAs will need to be procured to meet RPS targets, and vice-versa. Therefore, from a cost causation perspective, there is a clear link between usage and PPA costs incurred for RPS compliance, which are currently collected in the stranded cost fixed charge.

**Q Does collection of long-term PPA costs through volumetric charges send an appropriate economic signal to customers?**

A Yes, because the costs of long-term PPAs are correlated with energy use. On the margin, increases in the volumetric charge send a price signal for customers to reduce energy usage. As discussed above, a reduction in energy usage decreases the cost of RPS requirements, which decreases the total amount and cost of PPAs required to meet the RPS. Therefore, it is appropriate to recover the cost of long-term PPAs in the volumetric charge.

[26] LD 1494, Section 3-A, "each competitive electricity provider in this State must demonstrate in a manner satisfactory to the commission that the percentage of its portfolio of supply sources for retail electricity sales in this State accounted for by new renewable capacity resources is as follows." Emphasis added.

**Q How would the allocation of cost recovery between volumetric and fixed charges be determined?**

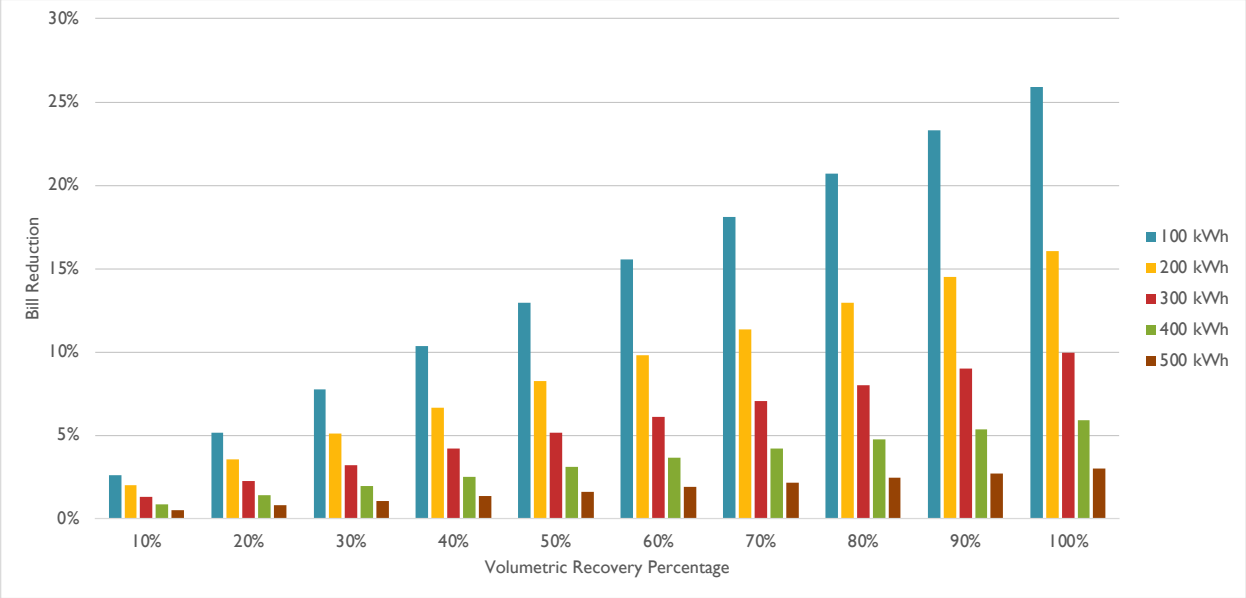
A Based on the volumetric nature of the problem the NEB-related policy goals are intended to solve, as well as the volumetric nature of stranded cost causation and allocation, most stranded costs, which are currently comprised primarily of NEB costs,[27] could be considered volumetric and collected from customers as a per-kWh rate.

**Q How would increased volumetric recovery affect rate classes and customer bills relative to the current stranded cost allocations?**

A Increasing volumetric recovery of stranded costs entails decreasing fixed cost collection. We provide a range of bill impact calculations below, for CMP customers in the residential class. Each bar represents a different monthly usage level, from 100 to 500 kWh. The x-axis provides different scenarios of volumetric cost recovery, from 10 percent to 100 percent. The y-axis shows the bill reduction (positive) for each level of volumetric cost recovery for the distribution portion of the bill.[28]

[27] Based on CMP's Rate Year 2 (March 2024–February 2025) forecast and Rate Year 1 (March 2023–February 2024) reconciliation filings on March 29, 2024, in Docket No. 2024-00015.
[28] The calculation shows the benefit of collecting current fixed stranded costs on a volumetric basis.

**Figure 6. Residential bill reductions from volumetric recovery of current stranded cost fixed charge**




The graph shows that lower-usage customers experience the greatest bill reductions from volumetric cost recovery, relative to fixed stranded cost recovery. For example, a customer with 100 kWh of usage saves 3 and 26 percent on the distribution part of the bill based on 10 and 100 percent volumetric cost recovery, respectively.

**Q Please address the Commission's finding that recovering NEB stranded costs through volumetric charges is contrary to the State's climate policy goals.[29]**

A The Commission previously expressed concern that recovering NEB stranded costs through volumetric charges could create a disincentive for customers to invest in beneficial electrification. While it is true that increasing customer charges rather than increasing volumetric charges can make transportation and heating electrification more

[29] Maine Public Utilities Commission. Order in Docket No. 2022-00160, *Investigation of Stranded Cost Rate Design*. April 21, 2023. At 14.

cost effective by reducing the operating costs of these technologies, it would be more reasonable to offer an optional opt-in rate structure for customers who adopt these technologies. This avoids subjecting all customers, especially in the residential class, to the inequitable impacts of higher fixed charges described in Question 2. A higher fixed charge also discourages conservation and/or investments in energy efficiency, which are important potential savings opportunities that also benefit all ratepayers.

**Q Does this conclude your testimony?**

A Yes, it does.