COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES

Petition of NSTAR Electric Company d/b/a	)	
Eversource Energy pursuant to G.L. c. 164, § 94	)	
and 220 CMR 5.00, for Approval of a General	)	**D.P.U. 22-22**
Increase in Base Distribution Rates for Electric	)	
Service and a Performance-Based	)	
Ratemaking Plan	)	

SURREBUTTAL TESTIMONY OF

JOHN D. WILSON

ON BEHALF OF

THE CAPE LIGHT COMPACT JPE

JUNE 24, 2022

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is John D. Wilson. My business address is Resource Insight, Inc., 10 Court Street, Box 232, Arlington, Massachusetts.

Q. Did you provide your qualifications and professional experience in your pre-filed testimony in this proceeding?

A. Yes, Exhibit CLC-JDW-1 includes a summary of my qualifications and professional experience, and my resume and a summary of my prior testimony is included in Exhibit CLC-JDW-2.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of the Cape Light Compact JPE (the "Compact") in this proceeding.

Q. What is the purpose of your surrebuttal testimony?

A. My surrebuttal testimony responds to the rebuttal testimony of Mr. Richard D. Chin, witness for NSTAR Electric Company d/b/a Eversource Energy ("Eversource" or the "Company") in Sections II and III.

I also respond to late-filed supplemental discovery responses from Eversource regarding the allocators in tab ACOS-5 and the shares in tab Voltage Splits. These discovery responses have been challenging to obtain and remain outstanding. In my direct testimony, I noted that I had been unable to form an opinion as to the reasonableness of the cost of the service study. (Exhibit CLC-JDW-1 at 3, lines 4-

18.) I had been unable to review the allocators in tab ACOS-5 and the shares in tab Voltage Splits because these values were pasted into the cost-of-service study workpapers filed in Attachment AG-1-1(h) (Supp 1) (filed February 28, 2022). On May 4, 2022, Eversource filed Attachment AG-1-1(h) (Supp 2), but I found that the relevant allocators in tab ACOS-5 and the shares in tab Voltage Splits were still pasted into the cost-of-service study workpapers and thus remained outstanding. Eversource was made aware that the discovery supplement was still incomplete and would need to be supplemented again. On June 15, 2022, Eversource produced the next supplemental response to CLC-ES-3-6, which provided some – but still not all – support for the allocator and share values. Eversource was again made aware of the outstanding discovery response. I am unable to finalize my cost-of-service study analysis without that information.

Nevertheless, in Sections IV and V, to the extent possible with the information received thus far, I recommend corrections to the cost-of-service data and provide updated revenue allocation exhibits.

II. ROLE OF DEPARTMENT PRECEDENT IN GUIDING EVERSOURCE'S PROPOSAL

Q. What is Mr. Chin's position in his direct testimony regarding whether or not the Department's precedents should be followed in its proposal?

A. In his direct testimony, Mr. Chin explains that the class revenue constraints being applied in the target revenue allocation process are applied based on "the Department's long-standing policy" and decisions reached in D.P.U. 13-90, 15-155, and 15-80/15-81. (Initial Filing, Exhibit ES-RDC-1 at 28-29.) Mr. Chin further explained that Eversource's proposal is intended to "allow for gradual consolidation and alignment of rates" based on precedent provided in D.P.U. 17-05. (Initial Filing, Exhibit ES-RDC-1 at 4.) In addition, in response to discovery, Mr. Chin provided that "[t]he allocation of the Company's proposed distribution revenue requirement was constrained so that no rate class would receive a distribution revenue decrease consistent with precedent established by the Department (e.g. D.P.U. 19-120 Order at 432)." (CLC-ES-3-4.) The clear implication of Mr. Chin's direct testimony is that the Department's precedents should be followed and that Eversource was doing exactly that.

Mr. Chin does, in one instance, support departing "from convention." (Initial Filing, Exhibit ES-RDC-1 at 30.) He explains that Eversource "is proposing a variation of the accepted target revenue allocation approach to make some progress towards the equalization of unit costs across rate classes …" (Initial Filing, Exhibit ES-RDC-1 at 30.) Equalization of unit costs across rate classes is, as Mr. Chin testifies, long-standing policy of the Department. (Initial Filing, Exhibit ES-RDC-1 at 28.) In my direct testimony, I acknowledged this argument and did not contest it. (Exhibit CLC-JDW-1 at 4.)

Q. What is Mr. Chin's position in his rebuttal testimony regarding whether or not the Department's precedents should be followed in its proposal?

A. In stark contrast to his direct testimony, Mr. Chin changes course in his rebuttal testimony where – instead of referencing Department precedent – he twice states that, "The Department reviews these types of calculations on a case-by-case basis in each rate case." (Exhibit ES-RDC-Rebuttal-1 at 7-8.)

Q. Which of Mr. Chin's positions do you believe to be most reasonable?

A. Mr. Chin's approach in his direct testimony is most reasonable. In general, Department precedent should be followed to the greatest extent possible. However, if Eversource, or indeed any other party, finds that variations to the precedent should be adopted to achieve Department policy, then it is reasonable to propose such variations and explain the reasons for those variations.

III. EVERSOURCE'S ERRORS IN CALCULATING THE ALLOCATION OF THE DISTRIBUTION REVENUE REQUIREMENT

Q. What is Mr. Chin's response to your identification of two major errors in Eversource's revenue allocation calculations?

A. Mr. Chin disagrees with my first correction to Eversource's mistakes in implementing the class revenue requirement floor and my second correction to Eversource's incorrect application of the order in which the two caps and the floor are applied.

Q: What is Mr. Chin's rebuttal position regarding your first correction on the correct method for applying the class revenue requirement floor?

A. Mr. Chin argues that the floor should be applied on "base distribution revenue." (Exhibit ES-RDC-Rebuttal-1 at 7.) The only argument he provides in support is that "applying the floor on total revenue … only confuses the calculation by incorporating the impact of reconciling rates which inherently increase or decrease on an annual basis." (Exhibit ES-RDC-Rebuttal-1 at 7.)

Q: Does Department precedent support applying the floor on "base distribution revenue"?

A. No. The Department's D.P.U. 19-120 Order supported applying the floor on total revenue when it required that the new class revenue be no lower than the total test year revenue adjusted for changes in reconciling revenues. (D.P.U. 19-120 Order at 487). The Department defined the rate floor as "the point where a rate class would receive a rate decrease." (D.P.U. 19-120 Order at 487.) In the context of an overall rate increase, the D.P.U. 19-120 Order clearly stated that no class should receive a rate decrease. This interpretation is supported by Schedule 10 attached to the Department's D.P.U. 19-120 Order. In Schedule 10, the floor on the class Base Distribution Revenue is defined as the "Test Year Base Distribution Revenue" minus the "Change in Reconciling Revenue" (column (b) – column (g)). (D.P.U. 19-120 Order at 487.[1]) In other words, the Department's Order required that the new class revenue be no lower than the total test year revenue adjusted for changes in reconciling revenues.

Q. Does Mr. Chin in Exhibit ES-RDC-2 apply the floor using base distribution revenue?

A. Yes, but only after removing the effect of base rate transfers. In Exhibit ES-RDC-2, Schedule 5, Eversource applies the floor (column v) by determining whether the allocated base distribution revenue increase (column u) is less than base rate transfers (column c). Similar comparisons are performed in Schedules 7, 8 and 9. If

[1] Most of the column designations are the same in D.P.U. 19-120 Schedule 10 as in Exhibit ES-RDC-2, Schedules 5 through 9.

base rate transfers were zero, then classes with base distribution revenue decreases would have the distribution revenue requirement increased up to the floor.

Q. Did Mr. Chin's direct testimony provide any support for applying the floor on base distribution revenue?

A. No. Mr. Chin's direct testimony does not expressly discuss the floor at all.

Q. Does Mr. Chin's rebuttal testimony explain why he recommends departing from Department precedent?

A. No. Mr. Chin does not explain why the floor should be applied to base distribution revenues instead of total revenues, amending Department precedent. In his rebuttal testimony, Mr. Chin states that my "assertion is flawed," but he does not state what flaw he believes exists in my review of Exhibit ES-RDC-2. (Exhibit ES-RDC-Rebuttal-1 at 7.) As noted above, Mr. Chin goes on to say that the calculation is confused "by incorporating the impact of reconciling rates." (Exhibit ES-RDC-Rebuttal-1 at 7.) Of course, it is not *my* recommendation that the impact of reconciling rates be incorporated into the calculation, it is the Department's precedent.

Nor does he explain why the floor should exclude the additional base rate transfers to base distribution revenues. Base rate transfers were not at issue in D.P.U. 19-120 and thus the Department's precedent is silent on this issue.

Q. Is Mr. Chin's addition of base rate transfers to base distribution revenues an error or intentional?

A. Mr. Chin briefly discusses the base rate transfers in his direct testimony, but not how the transfers should be considered in the floor. (Initial Filing, Exhibit ES-RDC-1 at 24.)

In my direct testimony, I assumed that Mr. Chin had made a simple formula error. (Exhibit CLC-JDW-1 at 6.) However, after review of Mr. Chin's rebuttal testimony, it appears that he wishes to propose setting the floor on base distribution revenues excluding the impact of base rate transfers. As noted above, neither of Mr. Chin's testimonies explicitly acknowledges that he is proposing to change Department precedent, much less provide a clear reason that the Department's precedent should be revised.

Q. Assuming that Mr. Chin intentionally excluded base rate transfers from the base distribution revenue floor, do you agree with this change?

A. No. Eversource's use of base distribution revenues has no basis in Department precedent, and by extension Mr. Chin's exclusion of base rate transfers from the base distribution revenue floor is similarly inconsistent with Department precedent, which used total revenues rather than base distribution revenue. It is my understanding that the Department established the floor to ensure that, if there is a cost-driven increase in rates, then no class would receive a decrease in rates in the interest of equity.

One might argue that since the base rate transfer is not a cost-driven increase in distribution rates, it makes sense to exclude this transfer from the base rate distribution baseline. However, adopting this approach merely postpones the impact of the base rate transfers to a future rate case. In future rate cases the base rate transfers would represent a non-cost-driven increase in distribution rates.

Eversource could maintain the base rate transfer exclusion in perpetuity, but this would require tracking these costs independently which is contrary to the purpose of transferring these costs into base rates. Not only would the base rate transfer costs need to be tracked, but Eversource would need to justify a decision to exclude or include changes in those costs from the base distribution baseline. Since changes in the costs included in the base rate transfer would be cost-driven changes, it could be argued that changes in the costs, but not the transferred costs, should be considered in applying a base distribution revenue floor. It appears to me that any accounting treatment that maintains the base rate transfer exclusion in perpetuity would be complex and arbitrary.[2]

The arbitrary and changing definition of what costs are or are not in the floor highlights the reasonableness of the Department's existing precedent regarding applying the floor to total revenue.

Q. What is Mr. Chin's rebuttal position regarding your second correction on the proper order for applying the floor, cap on total revenue, and cap on average distribution revenue increase?

A. Mr. Chin does not dispute that Eversource's proposal is inconsistent with D.P.U. 19-120, but simply states that my assertion is "irrelevant." (Exhibit ES-RDC-

[2] Furthermore, in future rate cases, perhaps Eversource would propose to transfer other costs between base rates and trackers, resulting in more one-time adjustments to the floor.

Rebuttal-1 at 7.) Mr. Chin instead summarily states without explanation that the alternative calculation method used by Eversource “is consistent with the Department’s intent.” (Exhibit ES-RDC-Rebuttal-1 at 8.)

Mr. Chin states that he is puzzled by the result that various classes receive distribution revenue decreases despite my “claims” (which Mr. Chin does not contest) that I properly applied the floor to prevent rate decreases. (Exhibit ES-RDC-Rebuttal-1 at 8.) He points to resulting distribution revenue decreases for certain rate classes because I have improperly applied the floor. (Exhibit ES-RDC-Rebuttal-1 at 8.)

Q. Have you improperly applied the floor?

A. No. As discussed above, I applied the floor as described in D.P.U. 19-120. I then also followed Department precedent by applying the floor in between the 10 percent cap and the 200 percent cap, which is the order determined in D.P.U. 19-120. (D.P.U. 19-120 Order at 487.) Mr. Chin does not provide an explanation for why Eversource did not apply this order. As discussed above, Department precedent should be complied with to the greatest extent possible and employing the correct order of these three steps should be honored.

As shown in Table 1 of my direct testimony, the combined effect of correcting both the floor and the order of the three steps has a substantial impact on the total revenue requirement for some customer classes. (Exhibit CLC-JDW-1 at 9.) I have updated this in Table 4 of Section V of this surrebuttal testimony, also including corrections to the cost-of-service study. For example, in the small general group, the largest G-1 rate beneficiaries are in Cambridge (corrected from a 3.6% increase to a 0.0% increase) and West (corrected from a 2.7% increase to a 0.0% increase). In the medium general group, the largest beneficiaries are in West (corrected from a 7.8% increase to a 0.0% increase) and South (corrected from a 5.9% increase to a 0.0% increase). In the large general group, the only G-3 rate beneficiary is West (corrected from a 5.5% increase to a 4.2% increase).

Consistent with Department precedent, my recommendation generally avoids rate decreases. As shown in Table 1 in my direct testimony, the total revenue requirement increases for all but four classes. (Exhibit CLC-JDW-1 at 9.) The four classes receiving a decrease (G-4 South, G-5 Cambridge, G-6 South, and WR Boston) are among the smallest rates in their respective groups, and the total revenue decrease for all four classes combined is a practically negligible $322,058.

There are two reasons these four rates get small decreases in total revenue. For the one large general rate, WR Boston, the $308,436 decrease in total revenue is because the 200 percent cap in distribution revenue is applied to this class *after* the floor, consistent with Department precedent. Reducing the distribution revenue to the level required by the 200 percent cap results in the total revenue requirement being 2.1% less than under present rates.

The other three rates (G-4 South, G-5 Cambridge, and G-6 South) are in the small general group which has a 0.001% total revenue increase. As discussed in my direct testimony, applying a no decrease in revenues floor to a group that has no revenue increase results in an unchanged total revenue requirement. Even after four iterations of revenue redistribution to meet the floor for this group, the equation did not solve perfectly.

In hindsight, since the 200 percent cap did not affect the small general group, it might have been more straightforward to simply force each rate in the small general group to receive a 0.001% total revenue increase rather than implementing the floor. Using this method avoids the outcome of revenue requirement decreases—but I note that the impact is trivial because the amount at stake is just $13,623.

Q. Do your corrections result in some rate classes receiving a decrease in the distribution portion of the revenue requirement?

A. Yes. As stated in my direct testimony, after correcting Eversource's calculations to apply the method described in the D.P.U. 19-120 Order, the distribution revenue requirement for several general rate classes switched to a decrease.

In his rebuttal, Mr. Chin stated that my "proposed methodology is contrived and produces results that are contrary to the intent of a revenue floor." (Exhibit ES-RDC-Rebuttal-1 at 8.) While Eversource may intend the revenue floor to apply to only the distribution revenue requirement, as previously discussed above, the Department's past practice has been to apply that floor to the total revenue requirement. See D.P.U. 19-120 Order at 487.

The Department's precedent is entirely reasonable as customers pay rates based on the total revenue requirement and are less concerned with whether the revenue requirement associated with the distribution portion of rates is itself increasing or decreasing. It would make sense that the Department would not want some rates to decrease while others are increasing as that would appear inequitable.

For example, Eversource's proposal would provide customers in G-2 Boston receiving a 2.0% *decrease* in the total revenue requirement while G-2 customers in Cambridge, South, and West receive 3.8%, 5.9%, and 7.8% *increases* in the total revenue requirement. This is the result that is contrary to the intent of the Department's revenue floor and inequitably favors medium general Boston customers over medium general customers in other parts of Eversource's service territory.

Q. Please respond to Mr. Chin's comment that he is perplexed by the negative one percent total revenue floor option you suggested.

A. Considering that Mr. Chin has misplaced the focus on the distribution portion of the revenue requirement, it is unsurprising that he is perplexed by the option I suggested. The Department should review my proposed option in light of its intent to set a floor based on Department precedent to the greatest extent possible, including using the total revenue impacts of Eversource's proposed rate increases.

The problem this option addresses is that for the small and medium general groups, class revenue requirements may not make much progress towards the Department's goal of equalizing rates of return. This is because these two groups have a total revenue requirement increase (after correcting Eversource's Schedule 5) of only 0.001%. With each group's total revenue requirement virtually unchanged, correct application of the floor results in nearly unchanged total revenues for each class within each group. Without any potential for changes in total revenues, the change in base distribution revenue is entirely determined by the change in reconciling revenue, with no independent movement towards equalized rates of return.

My option addresses this issue more directly than Eversource's proposal to set the floor using base distribution rather than total revenues. I found that lowering the floor—allowing the total revenue impact for individual rate classes to decrease by up to 1.0%—produced what appears to be a more reasonable result for both the change in distribution revenue requirement and the total revenue impact than if the floor is set to a 0% decrease.

IV. CORRECTIONS TO COST-OF-SERVICE DATA

Q. Why are you supplementing your direct testimony with new issues?

A. Since the date of my direct testimony, Eversource has provided some (but not all) of the discovery responses that were outstanding at the time of my direct testimony, including revised data that should be incorporated into its cost-of-service study. As discussed above and in my direct testimony (at 3, lines 4-18), Eversource did not provide supporting workpapers for several allocators in tab ACOS-5 and the shares in tab Voltage Splits because these values were pasted into the cost-of-service study workpapers as Attachment AG-1-1(h) (Supp 1). Without supporting documents demonstrating how these values were obtained, I was unable to present an opinion as to the reasonableness of the cost-of-service study in my direct testimony. On May 4, 2022, Eversource filed Attachment AG-1-1(h) (Supp 2) with new information, but some relevant allocators in tab ACOS-5 and the shares in tab Voltage Splits were still pasted into the cost-of-service study workpapers. On June 15, 2022, Eversource filed CLC-ES-3-6 Supplement 2, which revised its cost-of-service study and provided some – but still not all – support for the allocator and share values. These filings resulted in the need for me to conduct additional analysis of Eversource's cost-of-service study and to supplement my direct testimony.

Q. Has Eversource supplied workpapers that fully support the cost-of-service study?

A. Not entirely. Eversource's CLC-ES-3-6 Supplemental 2 provides most, but still not all, of the supporting workpapers. Missing items include:

First, there are two problems with the allocator for customer service and assistance costs. As stated in in CLC-ES-3-6 Supplement 2, Item 3(g), the data supplied in Attachment CLC-ES-3-6(u) represent a correction to the data used to produce ACOS-2 of its cost-of-service study filed in Attachment AG-1-1(h)-Supplement 1. However, Eversource has not yet filed an updated cost-of-service study reflecting this correction.

Also, Eversource has not supported all elements in its allocator calculation. This allocator is derived from the number of customers, but according to Attachment CLC-ES-3-6(u), Eversource also weights residential customers 50% higher (0.6) than non-residential customers (0.4). Eversource does not explain in its workpapers or discovery responses *why* residential customers are weighted 50% higher than non-residential customers, or even why a weighting factor is required at all.[3]

Second, Eversource did not file a corrected version revenue allocation model using a corrected cost-of-service study, despite acknowledging two errors in its cost-of-service study (including the allocator for customer service and assistance costs). (CLC-ES-3-6 Supplement 2, Item 1 and Item 3(g).)

Q. Have you identified any reasons why Eversource should correct its cost-of-service study?

A. Yes. In addition to the two errors acknowledged by Eversource in CLC-ES-3-6 Supplemental 2, I have identified three additional problems. Together, these five problems have a significant impact on the cost-of-service study and, consequently, on revenue allocation. As detailed below, I recommend that the cost-of-service study be updated and further supported in certain aspects related to each of these five problems, which I describe in turn below:

The first problem, as noted above, is an error recognized by Eversource related to the allocator for customer service and assistance costs, which "create[ed] a cost allocation error applicable to approximately $1.6 million in costs." (CLC-ES-3-6 Supplemental 2, Item 3(g).)

[3] CLC-ES-3-6 Supplemental 2, Item 3(g) states that Attachment CLC-ES-3-6(t) provides the source of the weights, but row 51 of that workpaper merely includes the weights (0.6 or 0.4) in a formula.

The second problem is that Eversource identified that it updated the primary and secondary shares for line transformers in account 368. The primary share increased from 97.24% to 97.56%. (CLC-ES-3-6 Supplemental 2, Item 1.)

The third problem is that Eversource underweighted the primary shares for both overhead and underground conductors and devices in accounts 365 and 367. Eversource calculates these shares based on the costs from 1986-2015. There are three problems with its workpapers for accounts 365 and 367:

1. It is not clear why Eversource excluded more recent data from 2016-2021 from this analysis, as these data should be readily available.
2. Each account includes multiple rows of NSTAR primary and secondary costs, with no indication as to what differentiates the rows from each other. This could be of significance if the costs are regionally differentiated, or if they include a plant that is no longer in service.
3. Costs from each year are weighted equally, so that costs from 1986 are weighted the same as 2015. It is not clear whether these costs are original costs or represent the remaining undepreciated balance.

While I am unable to offer any corrections to address the first two points, I have calculated revised primary/secondary splits for accounts 365 and 367. I used the proposed accrual rates to estimate net plant in rate base. (Exhibit ES-JJS-3.) As shown in Table 1, the primary voltage cost shares are increased by 2-3% for each account.

Table 1: Voltage Splits for Overhead and Underground Conductors and Devices

	Overhead (Account 365)		Underground (Account 367)	
	Primary	Secondary	Primary	Secondary
Undiscounted	71.97 %	28.03 %	89.73 %	10.27 %
Corrected for Accrual	74.61 %	25.39 %	91.39 %	8.61 %

The fourth problem is that the cost of poles, towers, and fixtures (account 364) is allocated on the same basis as overhead conductors and devices (account 365). I will discuss this problem in further detail below.

The fifth problem is that the cost of underground conduit (account 366) is allocated on the same basis as underground conductors and devices (account 367). I will discuss this problem in further detail below.

Q. How should the Department resolve the first three problems?

A. I recommend that the cost-of-service study, and thus the revenue allocation and rates, should be updated to use (a) the allocator for customer service and assistance costs as revised by Eversource and (b) the primary/secondary splits for accounts 365, 367, and 368 as revised by Eversource or proposed in Table 1 above.

Furthermore, the Department should direct Eversource to provide support for the weights used in its customer service and assistance cost allocator. If that support is unreasonable, the Department should consider substituting reasonable values or directing Eversource to study the issue and use more reasonable weights (if any) in its next general rate application.

Finally, the Department should direct Eversource to update its overhead and underground conductors and devices cost data to include more recent costs, and provide more descriptive detail. If those data are not readily available, this should be completed for the next general rate application.

Q. Why is it incorrect to allocate the cost of poles, towers, and fixtures (account 364) on the same basis as overhead conductors and devices (account 365)?

A. There are two problems with this assumption.

First, the cost of poles, towers and fixtures is not a function of the cost of conductors and devices. With respect to poles, the cost of poles that carry secondary conductors is usually about the same as for poles that carry *both* secondary and primary conductors. Poles that carry only secondary conductors are usually shorter and less expensive than poles that carry primary conductors, but most primary poles are high enough to accommodate secondary lines at no extra cost. If the secondary lines do not impose any incremental pole cost, there is no reason to charge secondary customers extra.

Within each category, pole cost varies depending on factors such as the primary voltage carried (with higher voltages requiring greater clearance), terrain, and fixtures required, including crossarms for primary lines. Some poles may be higher than normal to accommodate multiple primary feeders. Steeper terrain may require taller poles, but generally will not affect the cost of conductors. The relationship between the cost of poles, towers, and fixtures and the cost of conductors and devices is tenuous at best.

Functionalizing, classifying and allocating the cost of secondary-only poles, towers and fixtures to secondary customers would be complex. Fortunately, it is entirely unnecessary.

The second problem with allocating the cost of poles, towers and fixtures between primary and secondary service on the same basis as overhead conductors and devices is that secondary customers would wind up paying twice for the poles, once based on their secondary load and once based on their primary load. Once the secondary customers are allocated their share of the primary poles, there is no basis for charging them a second time for the same poles. There is no cost basis for allocating any appreciable portion of combination poles to secondary. (Regulatory Assistance Project, *Electric Cost Allocation for a New Era: A Manual*, January 2020 at 143.[4]) Secondary customers do not require additional poles or more expensive poles, by virtue of being served at secondary. To the extent that some poles only carry secondary lines, they can be shorter and less expensive than the poles that would have been needed to serve the same customers at primary; if anything, secondary customers allow Eversource to save money on those poles.

If Eversource feels that it is necessary to functionalize, classify and allocate the secondary-only poles to secondary customers, then it should provide secondary customers an offset credit for the lower average cost of the poles they require. Secondary poles are much less expensive than primary or combination poles. A primary customer in the same location would require a much more expensive pole (or poles) to carry the additional spans of primary.

While reasonable, a study to correctly allocate the cost of poles (and related equipment) providing secondary service would be rather complicated. If properly conducted, such a study would allocate to secondary distribution customers the

[4] https://www.raponline.org/knowledge-center/electric-cost-allocation-new-era/

costs of secondary-only facility, the incremental costs of adding secondary service to combination poles, and an appropriate share of primary service cost.

Q. What is your recommendation with respect to the allocation of the cost of poles, towers, and fixtures?

A. I recommend that the Department should direct Eversource to use a simpler approach and allocate the entire cost of poles, towers and fixtures to primary service. This is reasonable because primary distribution costs are shared by all classes in proportion to their contribution to demand at the primary voltage level.

A further advantage of this recommendation is that it can be implemented in this proceeding.

If the Department prefers the more complicated approach, it should direct Eversource to conduct a study to allocate these costs as I described above, and to use it for Eversource's next general rate application.

Q. Why is it incorrect to allocate the cost of underground conduit (account 366) on the same basis as underground conductors and devices (account 367)?

A. There are two problems with this assumption.

First, the cost of underground conduit may be *overallocated* to secondary distribution if any of Eversource's predecessor utilities buried secondary conductors directly in the ground without conduit. Allocating the cost of conduit to secondary distribution if much of the secondary system does not use conduit results in overallocation.

Second, the cost of underground conduit may be *underallocated* to secondary distribution because in my experience utilities generally determine the cost of conduit as a function of its length and not of the cost of conductor. Eversource has not provided the length of conduit in its workpapers. (CLC-ES-3-6 Supplemental 2, Item 1.) Conduit for primary conductors does not cost much more than conduit for secondary conductors (if used at all).

It is possible that these two problems could coincidentally cancel each other out, but this is unlikely.

Q. What is your recommendation with respect to the allocation of underground conduit cost?

A. The Department should direct Eversource to conduct a study to allocate underground conduit cost based on what percentage of secondary conductors are placed in conduit and conduit length. It may also be appropriate to factor in conduit diameter if cost is materially different. These data could be obtained from Eversource's GIS system, or by studying records for a sample of its feeders. The study should be used to inform the allocation of cost in account 366 for Eversource's next general rate application.

Q. Please summarize your new recommendations related to the cost-of-service study.

A. I recommend that the Department direct Eversource to adopt an updated the cost-of-service study, and thus updated revenue allocation and rates as follows:

1. Apply the allocator for customer service and assistance costs as revised by Eversource (but considering additional evidence regarding support for the

residential/non-residential weights used by Eversource, potentially substituting more reasonable weights, if any).

2. Apply the primary/secondary splits for account 368 as revised by Eversource.
3. Apply the primary/secondary splits for accounts 365 and 367 as proposed in Table 1 above.
4. Allocate the entire cost of poles, towers and fixtures in account 364 to primary service.

My new Exhibit CLC-JDW-Surrebuttal-2 applies the four recommendations listed above to Eversource Exhibit ACOS-2, the output table of its cost-of-service study. This is supported by my new Exhibit CLC-JDW-Surrebuttal-5, which includes corrections to the allocators in Eversource Exhibit ACOS-5—I have also attached the primary/secondary voltage splits table from the supporting workbook to clarify the corrections reflected in these exhibits.

Furthermore, the Department should consider directing Eversource to conduct the following additional cost studies for use in its next general rate application:

5. Study the residential/non-residential weights used in the customer service and assistance costs allocator calculation.
6. Study the allocation of poles, towers and fixtures in account 364 to primary/secondary service, if the Department prefers this approach to simply allocating these costs entirely to primary service.
7. Update overhead and underground conductors and devices cost data for accounts 365 and 367 to include more recent costs, and provide more descriptive detail.
8. Study the allocation of underground conduit cost based on what percentage of secondary conductors are placed in conduit, conduit length, and conduit diameter, to inform the allocation of cost in account 366.

V. UPDATED REVENUE ALLOCATION EXHIBITS

Q. Please summarize your updated revenue allocation exhibits.

A. I am submitting two updated revenue allocation exhibits, CLC-JDW-Surrebuttal-3 and CLC-JDW-Surrebuttal-4, which replace exhibits CLC-JDW-3 and CLC-JDW-4 from my direct testimony. (Exhibit CLC-JDW-1 at 20.) For both exhibits, I copied Exhibit CLC-JDW-Surrebuttal-2, ACOS-2 into the revenue allocation model, which is the main change to the exhibits.

In Exhibit CLC-JDW-Surrebuttal-3, I also make a trivial change to Schedules 7 and 8 to force each small and general rate class to receive exactly the group average 0.0003% total revenue increase, rather than computing rates that would remain at or trivially above the 0.0% floor (see page 13). I do not make this change in the optional variation with the -1% floor, attached as Exhibit CLC-JDW-Surrebuttal-4, because a lower floor allows the small and general rate classes to have varying total revenue requirements.

Q. What is the impact of the corrections to the cost-of-service study on the revenue allocation?

A. As shown in Table 2, the primary impact of the corrections to the cost-of-service study described in Section IV is to increase the base distribution revenue at the equal rate of return ("EROR") for large general service customers and decrease it for all other classes.

Table 2: Base Distribution Revenue at EROR ($ million)

Rate Group	**ES-RDC-2**	**Updated ACOS-2**	**Impact**
Residential	655.7	653.6	**-0.3%**
Small General Service	259.4	257.2	**-0.9%**
Medium General Service	173.6	172.6	**-0.6%**
Large General Service	131.9	137.2	**+4.1%**
Lighting – Company	12.6	12.6	**-0.1%**
Lighting – Customer	2.8	2.8	**-0.6%**
Total Company	**$ 1,236.0**	**$ 1,236.0**	

Updated ACOS-2: Exhibit CLC-JDW-Surrebuttal-2, ACOS-2.

The impact of the corrections to the cost-of-service study on revenue allocation is shown in Table 3. The updated cost-of-service study results in shifting $5.8 million in revenue requirement from the residential group mainly to the large general service group. The shift also reflects the impact of applying the floor to total revenue on the small and medium general service groups.

Table 3: Impact of Corrections on Total Distribution Revenue Requirement ($ million)

Rate Group	At Current Rates	ES-RDC-2	Increase (Decrease)	Updated ACOS-2	Increase (Decrease)
Residential	2,089.3	2,208.6	5.7 %	2,202.9	5.4 %
Small General Service	1,050.9	1,050.0	(0.1) %	1,050.9	0.0 %
Medium General Service	832.9	832.6	0.0 %	832.8	0.0 %
Large General Service	820.7	839.9	2.3 %	844.5	2.9 %
Lighting - Company	15.3	16.9	10.0 %	16.9	10.0 %
Lighting - Customer	11.0	11.3	2.1 %	11.3	2.1 %
Total Company	**$ 4,820.1**	**$ 4,959.2**	**2.9 %**	**$ 4,959.2**	**2.9 %**

Updated ACOS-2: Exhibit CLC-JDW-Surrebuttal-3

Correcting Eversource's mistakes eliminates the decrease in total revenue for the two Boston rate classes (G-1/T-1 and G-2). More generally, because the small and medium general groups have a total revenue impact of about 0%, nearly all of the individual tariffs in those groups have a total revenue impact that is very close to 0%, as shown in Table 4 on the following page.

Table 4: Total Revenue Impact at Proposed Revenue Requirement

Rate	Eversource Proposal	Corrected	-1% Floor Option
Residential Group	**5.7%**	**5.4%**	**5.6%**
R-1/R-2 Residential	5.2%	4.9%	5.1%
R-3/R-4 Residential Heating	9.7%	9.7%	9.7%
Small General Group	**-0.1%**	**0.0%**	**-0.2%**
NEW G-1/T-1 (<=100 kW) (BOST)	-0.9%	0.0%	-0.3%
NEW G-1/G-6 (<=100 kW) (CAMB)	3.6%	0.0%	-0.4%
G-5 Comm. Space Heat (CAMB)	1.1%	0.0%	4.6%
G-1 Gen. Serv. (SOUTH)	0.6%	0.0%	-0.2%
G-7 Optional TOU (SOUTH)	0.6%	0.0%	-0.2%
G-4 General Power (SOUTH)	5.8%	0.0%	4.7%
G-5 Comm. Space Heat (SOUTH)	-3.7%	0.0%	-0.3%
G-6 All Electric School (SOUTH)	4.9%	0.0%	4.1%
23 Optional Water Heating (WMA)	1.2%	0.0%	-0.4%
24 Optional Church (WMA)	4.2%	0.0%	-0.3%
NEW G-1 (<=100 kW) (WMA)	2.7%	0.0%	-0.2%
Medium General Group	**0.0%**	**0.0%**	**-0.2%**
NEW G-2 TOU (BOST)	-2.0%	0.0%	-0.2%
G-2 TOU (CAMB)	3.8%	0.0%	-1.0%
G-2 TOU (SOUTH)	5.9%	0.0%	1.2%
NEW G-2/T4 (WMA)	7.8%	0.0%	0.4%
Large General Group	**2.3%**	**2.9%**	**3.0%**
Rate G-3 TOU (BOST)	0.8%	2.0%	1.9%
Rate WR (BOST)	-2.1%	-2.1%	-2.1%
Rate G-3/SB1/MS1/SS1 (CAMB)	3.7%	3.7%	3.7%
Rate G-3 TOU (SOUTH)	5.9%	5.9%	5.9%
Rate G-3 (current T-2) TOU (WMA)	5.5%	4.2%	5.3%
Rate T-5 TOU (WMA)	4.2%	4.2%	4.2%

Eversource Proposal: Initial Filing, Exhibit ES-RDC-2, Schedules 5-9.
Corrected: Exhibit CLC-JDW-Surrebuttal-3, Schedules 5-9.
-1% Floor Option: Exhibit CLC-JDW-Surrebuttal-4, Schedules 5-9.

VI. CONCLUSION

Q. Please update your overall recommendations to the Department.

A. As stated in my direct testimony, I recommend that:

1. The Department should require that Eversource's calculations be corrected consistent with prior precedent, following the method described in my direct testimony as further explained in Section III.
2. The Department should modify its previous method for implementing the floor, as described in D.P.U. 19-120, to allow reallocation of the floor credit to rate classes that already benefitted from the ten-percent cap after the first iteration. This reduces the tendency of the method to cause very small rate classes to receive a disproportionate credit or significantly violate the floor.
3. The Department could[5] lower the floor to allow the total revenue impact for individual rate classes to decrease by 1.0%, which results in more moderate decreases in class distribution revenue requirements with respect to maintaining the floor at 0%.

Exhibits CLC-JDW-Surrebuttal-3 and 4 use the same methods as Exhibits CLC-JDW-3 and 4 with the exception of a minor simplification to calculating the floor for the small and medium general classes (see page 13).

My surrebuttal testimony includes two additional set of recommendations:

4. The Department should direct Eversource to adopt an updated cost-of-service study, and thus updated revenue allocation and rates, to correct the allocator for customer service and assistance costs and the primary/secondary splits for accounts 364, 365, 367, and 368 as discussed in Section IV.
5. The Department could consider directing Eversource to conduct additional cost studies for use in its next general rate application, including the residential/non-residential weights used in the customer service and assistance costs allocator calculation; the allocation of poles, towers and fixtures in account 365 to primary/secondary service; and the allocation of underground conduit cost in account 366.

[5] Due to an editing error, my prefiled direct testimony used the word "should" rather than "could." I intend to correct this error on the stand. As stated in several places in my direct testimony, I suggested the -1% floor as an option. (Exhibit CLC-JDW-1 at 14-15.)

The updates described in recommendation 4 are included in Exhibit CLC-JDW-Surrebuttal-2 and the resulting allocators in ACOS-2 are included in Exhibits CLC-JDW-Surrebuttal-3 and 4.

Q. Does this conclude your testimony?

A. Yes, at this time, but as discussed above, I reserve the right to *further* supplement my testimony should I identify additional issues based on receipt of outstanding information requested from Eversource.