REBUTTAL TESTIMONY

Prepared for

The Connecticut Light and Power Company
d/b/a Eversource Energy

Docket No. 26-05-10

By



London Economics International LLC
717 Atlantic Avenue, Suite 1A
Boston, MA 02111

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I. Introduction

Q. Ms. Frayer, please state your full name and business address.

A. My name is Julia Frayer. I am a partner and Managing Director of London Economics International LLC ("LEI"), a Massachusetts-based consulting firm specializing in the energy, water, and other infrastructure industries. My business address is 717 Atlantic Avenue, Suite 1A, Boston, Massachusetts 02111.

Q. Have you previously submitted testimony in this proceeding?

A. Yes. On July 14, 2026, I submitted direct written testimony on behalf of The Connecticut Light and Power Company d/b/a Eversource Energy ("CL&P" or the "Company"), designated Exhibit CLP-PBR-1. I presented LEI's industry total factor productivity ("TFP") study, Exhibit CLP-PBR-2, and cost benchmarking study, Exhibit CLP-PBR-3. I also evaluated the economic design of the Company's proposed Performance-Based Multi-Year Rate Plan ("PBMRP"), in Exhibit CLP-PBR-1 including the Company's proposed operations, maintenance and administrative ("OM&A") revenue adjustment mechanism, Consumer Dividend, capital funding mechanism, earnings sharing mechanism ("ESM"), and performance incentives.

Q. What is the purpose of your rebuttal testimony?

A. In this rebuttal testimony, I respond to the testimony of Dr. William O. Taylor on behalf of Acadia Center; Ms. Lindsay J. Griffin on behalf of Acadia Center and Conservation Law Foundation; and Ms. Gennelle Wilson and Mr. Oliver Tully of RMI on behalf of the Office of Consumer Counsel ("OCC"); I refer to Acadia center, Conservation Law Foundation and OCC as "interveners" in this rebuttal testimony, and by extension, the witnesses that testified on their behalf are referred to "intervenors' witnesses." My response addresses their concerns of the empirical analysis performed by LEI and presented in my direct

written testimony. In this rebuttal testimony, I will specifically address comments made by these individuals related to the scope of the indexed revenue cap; the alignment of the inflation and productivity factors; the economic role of the capital support mechanism (or the "F-Factor"); the treatment of historical productivity trends, alleged outlier observations, and alternative output measures; and the use of benchmarking to inform the Consumer Dividend. I have not responded to every position offered by these witnesses, and the fact that I may not have responded to any particular position or statement made by these witnesses does not indicate my agreement with that position or statement.

Q. Please summarize the principal conclusions in your rebuttal testimony.

A. I begin with the purpose and relevance of LEI's Industry TFP Study. The Industry TFP Study provides an appropriate empirical basis for setting the revenue cap's productivity factor, by evaluating historical productivity trends in the electric distribution industry. The employment of a long-term average industry measure of productivity trends was recognized as a central analytical feature of the PBR framework in Docket No. 21-05-15RE01, PURA Investigation into Revenue Adjustment Mechanisms for a Performance-Based Regulation Framework ("RE01") and the Proposed Final Decision issued in that proceeding on July 14, 2025 ("RE01 PFD").[1] The results of the Industry TFP Study should be considered in the context of the specific revenue adjustment mechanisms ("RAM") to which the productivity factor will apply, together with the other elements of the Company's

[1] Connecticut Public Utilities Regulatory Authority ("PURA"), *PURA Investigation into Revenue Adjustment Mechanisms for a Performance-Based Regulation Framework*, Docket No. 21-05-15RE01, Proposed Final Decision (July 14, 2025), 21–22.

proposed PBMRP.[2] The Company's proposed I-X revenue adjustment mechanism applies to the covered O&M component of its approved revenue requirement, while capital-related costs are addressed through a separate funding mechanism. Therefore, LEI recommended that the Company use the industry OM&A partial factor productivity ("PFP") as the empirical basis for the proposed X-Factor.

The X-Factor should also be consistent with the inflation measure ("I-Factor") used to adjust OM&A costs under the revenue cap. LEI recommended pairing the X-Factor, based on the industry OM&A PFP measure, with the composite OM&A input price index as the I-Factor. This is further described in Section IV.B to calibrate the annual adjustment to the covered operating-expense allowance. Capital has a separate funding and review process, whose economic rationale, safeguards, and incentive mechanism I address in Section IV.C.[3]

The intervenors' witnesses raise several issues concerning LEI's Industry TFP Study and its application to the Company's proposed PBMRP, including the treatment of potential outliers in the historical productivity data, the selection of output measures used in the productivity study, the treatment of capital costs and associated incentives, and a complaint about the format of the workpapers. I respond to all these concerns in this rebuttal testimony.

Next, I turn to intervenors' witnesses' commentary on LEI's benchmarking analysis, which evaluates CL&P historical performance relative to its peers and given the operating

[2] PURA, *RE01 Proposed Final Decision*, 22–25.

[3] Julia Frayer, *Direct Testimony*, Exhibit CLP-PBR-1, Docket No. 26-05-10 (Connecticut Public Utilities Regulatory Authority, July 14, 2026), 62–64, 68–71.

conditions under which CL&P operated its utility business in the last 10 years. LEI's benchmarking analysis supports the inclusion of a Consumer Dividend, however, the historical performance metrics (such as cost deviation between actual and model benchmark costs) do not, by themselves, establish the annual rate of efficiency improvement that can reasonably be achieved during the proposed PBMRP term. So, there are no specific quantitative results from LEI's benchmarking study that set the value of the Consumer Dividend – unlike the X-Factor and LEI's Industry TFP Study. As explained in Section VI of this rebuttal testimony, I considered these benchmarking results, together with relevant regulatory precedents, in assessing the reasonableness of the proposed initial 0.30% Consumer Dividend in the Company's PBMRP. One intervenor argues that CL&P's above-benchmark OM&A costs warrant a higher Consumer Dividend and proposes a tiered approach, based on the RE01 PFD. LEI maintains that historical cost differences do not establish achievable annual efficiency gains and that the initial 0.30% is reasonable given the benchmarking results, regulatory precedents, and overall PBMRP design. The proposed asymmetric ratcheting mechanism also allows the Consumer Dividend to increase to 0.60% with sustained efficiency improvements, subject to the applicable inflation cap.

Q. How is your rebuttal testimony organized?

A. My rebuttal testimony is organized into seven sections. Following this introduction, Section II discusses briefly several corrections to LEI's previously filed Industry TFP Study and Cost Benchmarking Study. I am also filing several exhibits that contain the errata for previously filed exhibits and workpapers. These corrections do not change the substance of my findings and independent recommendations as it relates to evaluation of the Company's PBMRP.

Section III provides a summary of my understanding of the arguments and questions posed by the intervenors' witnesses.

Section IV addresses intervenors' witnesses' opinions and misunderstandings related to key concepts underpinning the Company's proposed performance-based ratemaking framework, including the interpretation of negative productivity estimates, the appropriateness of an OM&A-specific X-Factor, the proposed capital recovery mechanism and associated efficiency incentives, alternative approaches to measuring productivity, and the relationship between the proposed framework and the RE01 proceeding.

Section V responds to the more nuanced technical questions related to LEI's Industry TFP Study, including methodological choices, sensitivity analyses, historical study period, treatment of unusual observations, and selection of output measures.

Section VI addresses the intervenors' witnesses' arguments regarding LEI's cost benchmarking analyses and the proposed Consumer Dividend.

Finally, Section VII summarizes my conclusions and recommendations.

II. Corrections and updates to LEI's Industry TFP Study and Cost Benchmarking Studies

Q. In preparing this rebuttal testimony and reviewing the issues raised by the intervenors, did you identify any updates or corrections that were needed to its previously filed Industry TFP Study and Cost Benchmarking Study?

A. Yes. As part of the preparation of this rebuttal testimony, the LEI team conducted an additional review of the underlying data, calculations, and supporting workpapers for its Industry TFP Study (Exhibit CLP-PBR-2) and Cost Benchmarking Study (Exhibit CLP-PBR-3).

The LEI team made the necessary corrections and updated the relevant analyses and supporting workpapers. These revisions are reflected in the following exhibits: CLP-PBR-Rebuttal-2, CLP-PBR-Rebuttal-3, CLP-PBR-Rebuttal-2a, CLP-PBR-Rebuttal-3a, and CLP-PBR-Rebuttal-3b.

I discuss below the nature of these corrections, their effects on the reported results, and whether they affect the conclusions presented in our direct testimony.

Q. What specific corrections were made to the Industry TFP Study and Cost Benchmarking Study?

A. The amendments stem from two issues identified in the workpapers: a capital service-flow series labeled as real rather than nominal, and a data-linking error that prevented the updated data for certain years (2005–2017) for one of the EDCs from being properly reflected in the relevant calculations.

First, during our review of the Industry TFP Study workpapers, we identified a capital service-flow series labeled as being expressed in real terms that actually reflected nominal capital service flows. This labeling correction for the capital service-flow series in the Industry TFP Study workpapers, which is captured in in tab "TFP_Data," row 3, column Z

of the workpaper named Exhibit CLP-PBR-Rebuttal-2a, also led to the need to recalculate LEI's unit-cost benchmarking analysis since that uses capital costs expressed in real terms. This recalculation affected capital and total-cost benchmarking results. These changes are reflected in Amended Exhibits CLP-PBR-3 and in tab "Capital Cost from TFP," column P.

Second, the data-linking error described above required some data updates to values for 2005–2017 for one of the peers to CL&P in the industry datasets used for LEI's Industry TFP Study and cost benchmarking analyses. This resulted in minor changes to LEI's Industry TFP Study and LEI's econometric-based benchmarking.

These corrections did not involve changes to the underlying methodologies, study periods, techniques, or choice of inputs and outputs described in LEI's original reports. The resulting adjustments were minor and did not alter LEI's conclusions or necessitate any changes to the design of the proposed PBMRP.

Q. How do these corrections affect the specific numerical values in the Industry TFP Study results or the proposed X-Factor for CL&P?

A. The corrections resulted in a very small change to LEI's estimate of industry OM&A PFP, which provides the basis for the proposed OM&A-specific X-Factor.

Specifically, LEI's estimate of average annual industry OM&A PFP growth over the 2005–2024 study period increased slightly from −0.03% to −0.01%. The revised estimate continues to indicate that average industry OM&A productivity growth has been close to

zero over the study period. Accordingly, the updated industry OM&A PFP estimate supports a revised OM&A-specific X-Factor of −0.01%.[4]

Notably, the corrections do not change LEI's methodology for estimating industry productivity or its rationale for using industry OM&A PFP to establish an X-Factor for the OM&A component of CL&P's proposed RAM. Thus, the revised results continue to support the use of an industry-based OM&A productivity factor under CL&P's proposed PBR framework.

Q. What effect did the corrections have on LEI's cost benchmarking results?

A. The corrections resulted in very modest revisions to certain benchmarking results. In the unit-cost benchmarking analysis, CL&P's OM&A results remained unchanged, while the revised capital-cost results indicated slightly more favorable relative cost performance and the total-cost results indicated slightly less favorable relative performance. In the ten-year econometric benchmarking analysis summarized below, the revisions resulted in modestly more favorable cost benchmarking results for CL&P across all three cost categories. The revised results, including the updated rankings, cost deviations, and econometric estimates, are presented in Exhibit CLP-PBR-Rebuttal-3 and the associated updated workpapers. My recommendation concerning the initial Consumer Dividend remains unchanged.

For the unit-cost benchmarking analysis, CL&P's OM&A cost ranking for the 2015–2024 period relative to the other 87 utilities in the national peer group remained unchanged at 69th, while its corresponding cost deviation from the industry average declined modestly from 22.9% to 22.0%, indicating slightly more favorable relative cost performance. CL&P's capital-cost ranking moved from 32nd to 30th, while its capital-cost deviation

[4] The corrections also changed slightly the 20-year (2005-2024) TFP trend from –1.41% to –1.40%, as reflected in LEI's Industry TFP Study in Exhibit CLP-PBR-Rebuttal-2.

from the industry average changed from −11.7% to −12.6%, indicating slightly more favorable relative cost performance. In contrast, CL&P's total-cost ranking changed from 47th to 56th, while its total-cost deviation changed from −2.6% to 3.7%, indicating that its average total unit-cost deviation was above, rather than below, the industry average following the corrections.

For the econometric benchmarking analysis, the corrections to that EDC's real capital-cost and OM&A data resulted in relatively small changes in the estimated cost deviations. Over the 2015–2024 period, CL&P's OM&A cost deviation from the model-predicted benchmark decreased from 11.9% to 11.6%, while its total-cost deviation changed from −2.3% to −2.6% and its capital-cost deviation changed from −13.5% to −13.9%. These revisions indicate modestly more favorable relative cost performance for CL&P across all three cost categories.

The re-estimation of the affected econometric models also resulted in certain changes to the estimated coefficients and statistical measures. The amended ten-year cost deviations continue to show above-benchmark OM&A costs and below-benchmark capital and total costs, as reported above.

The revised results, including the updated rankings, cost deviations, and econometric estimates, are presented in Exhibit CLP-PBR-Rebuttal-3 and its supporting workpapers. The corrections therefore change certain reported comparisons, including whether average total unit costs are above or below the industry average. My recommendation concerning the initial Consumer Dividend remains unchanged for the reasons discussed in Section VI.

III. Overview of Intervenors' Witnesses' Testimony

Q. Dr. Taylor, Ms. Griffin, and Ms. Wilson and Mr. Tully challenge aspects of LEI's analyses and the Company's proposed PBMRP. Would you please summarize your understanding of their questions and arguments?

A. Dr. Taylor questions LEI's reliance on historical average productivity trends, the selection of inputs and outputs, and argues that LEI's sensitivity analyses are not sufficient.[5] However, using historical industry productivity trends to establish an X-Factor is a well-established approach in North American utility regulation. LEI's selection of inputs and outputs is consistent with the purpose of measuring electric distribution productivity, the costs covered by the Company's proposed revenue adjustment mechanism, and the availability of reliable and comparable data. Importantly, Dr. Taylor does not conduct an independent electric distribution productivity study or present an alternative, consistently specified methodology demonstrating that LEI's approach is inappropriate. Rather, he performs selected calculations using LEI's reported results and published Bureau of Labor Statistics ("BLS") data. These calculations do not establish a more representative industry OM&A productivity trend or provide a sound basis for replacing LEI's proposed X-Factor.

Dr. Taylor reviews LEI's annual OM&A PFP observations and identifies the 2019–2020 period as an atypical observation relative to the historical productivity trend, using an interquartile-range analysis. By excluding this observation from LEI's originally reported annual OM&A PFP growth rates over 2005–2024, he calculates that average annual industry OM&A PFP increases from −0.03% to +0.675%. He recommends that the Public

[5] William O. Taylor, *Direct Testimony on Behalf of Acadia Center*, Docket No. 26-05-10 (Connecticut Public Utilities Regulatory Authority, October 21, 2026), 13–16, 21–22, 39–41.

Utilities Regulatory Authority ("Authority" or "PURA") consider +0.675% as a floor for the OM&A-only X-Factor.[6]

Dr. Taylor further recommends additional sensitivity analyses involving alternative output measures, expense classifications, weighting approaches, benchmark years, and capital-related assumptions, including gross versus net plant values and capital-cost smoothing.[7] LEI recognizes the value of sensitivity testing when alternative specifications are supported by a reasonable economic rationale and reliable data. However, Dr. Taylor does not identify the specific labor costs or distribution expense accounts that should be included or excluded, the alternative benchmark year or capital-cost smoothing methodology that should be applied, or an alternative weighting scheme for calculating OM&A PFP. Moreover, several of his suggested sensitivities concern capital productivity and would not directly affect the OM&A PFP measure underlying the Company's proposed X-Factor. LEI has also already examined several relevant sensitivities, including alternative output measure, study periods, regional sample, and other methodological assumptions. Dr. Taylor does not demonstrate that his proposed additional specifications would produce a more appropriate OM&A productivity estimate, let alone substantiate a higher X-Factor.

Dr. Tayor also throws out a number of irrelevant alternatives, without any substantiation for their selection. In addition to his proposed +0.675% OM&A X-Factor floor, he recommends a +0.457% BLS utilities multifactor productivity factor ("MFP") if the revenue cap applies to both OM&A and capital, proposes alternative X-Factor based on a TFP of zero and −1.04%, and suggests using the 62nd percentile of capital productivity instead of the industry average. He also reports a +0.678% BLS private-business

[6] Taylor, *Direct Testimony*, 16–17, 21–23.

[7] Taylor, *Direct Testimony*, 21-23.

productivity estimate as a comparator to the X-Factor. These figures are derived from different industries, cost categories, productivity concepts, and methodologies. Dr. Taylor does not demonstrate how these disparate measures can be reconciled into a consistent productivity framework appropriate for the Company's proposed PBMRP. In particular, the BLS utilities measure encompasses activities beyond electric distribution, while the private-business measure reflects industries with fundamentally different production processes and input requirements. Neither is directly comparable to electric distribution OM&A productivity.

Finally, he recommends consideration of a frontier analysis.[8] But he does not perform such an analysis, nor does he acknowledge the well-recognized problems with such an analysis experienced in other regulatory jurisdictions.

Ms. Griffin questions the OM&A-only I-X mechanism, and the adequacy of the Consumer Dividend.[9] She favors the broader revenue cap structure contemplated in the RE01 PFD , under which the indexed revenue cap would apply to the full base revenue requirement, with a separate CT-Bar mechanism for incremental capital investment. Her principal argument is that excluding capital from the indexed revenue cap weakens total-cost containment incentives and could encourage the Company to favor capital investments over operating solutions.[10] However, her proposed approach would not adequately address the Company's substantial capital investment requirements anticipated during the four-year PBMRP term. As explained in the Company's direct testimony, significant investments will be necessary to replace aging infrastructure, maintain and improve

[8] Taylor, *Direct Testimony*, 25–28, 35–38, 40.

[9] Lindsay J. Griffin, *Direct Testimony on Behalf of Acadia Center and Conservation Law Foundation*, Docket No. 26-05-10 (Connecticut Public Utilities Regulatory Authority, October 21, 2026), 33–43, 67–70.

[10] Griffin, D*irect Testimony*, 33–37.

reliability and resiliency, accommodate increasing demand, and modernize the distribution system. Her argument also overlooks that the OM&A revenue allowance is determined independently of actual operating expenses, creating an ongoing incentive for cost containment. Capital recovery is also subject to separate limits, reconciliation, and prudence review rather than being automatically reimbursed.

Ms. Griffin states that the Company's originally proposed −0.03% X-Factor "points the wrong way" because it would allow OM&A revenues to grow slightly faster than inflation before application of the Consumer Dividend.[11] Ms. Griffin correctly describes the mathematical effect of a negative X-Factor. However, this does not establish that the proposed factor is inappropriate. The X-Factor reflects measured historical industry OM&A productivity rather than a predetermined positive efficiency target. A negative historical productivity estimate does not eliminate the Company's incentive to control actual operating costs. Moreover, the proposed 0.30% Consumer Dividend more than offsets the negative X-Factor, producing a net adjustment of 0.29 percentage points below inflation using LEI's amended X-Factor of −0.01%.

Ms. Griffin also argues that LEI's productivity study does not follow the RE01 PFD's proposed use of customer count, delivered energy, and peak demand as outputs. LEI used customer count as it is the appropriate measure to calibrate the X-Factor for a revenue cap. It is also a commonly used output measure in North American electric distribution productivity studies, and it is consistently available and reflects the utility's obligation to maintain the distribution network and serve connected customers. LEI also examined electricity sales as an alternative output measure. Using the amended dataset, the sales-

[11] Griffin, *Direct Testimony*, 36–37, 67.

based sensitivity produces average annual OM&A PFP of approximately −0.97%, compared with −0.01% using customer count. Thus, LEI's preferred customer-based specification results in a higher X-Factor than the sales-based alternative and is therefore more conservative from the ratepayers' perspective. LEI also does not consider annual system peak demand an appropriate additional output measure for its TFP study, as it is not necessarily consistent with the revenue-cap framework proposed by the Company. It also does not align with localized loading conditions that drive distribution system investment. Moreover, the available FERC Form 1 peak-demand data are incomplete for the utilities and years covered by LEI's Industry Study, and annual system peak demand is sensitive to short-term weather and consumption fluctuations that may not reflect underlying productivity changes. Furthermore, Ms. Griffin does not present her own alternative productivity calculation incorporating all three measures, identify how they should be combined and weighted, or demonstrate that the resulting estimate would be more appropriate.

She also questions the use of an OM&A-specific composite inflation index rather than the economy-wide GDP Price Index contemplated in the PFD.[12] Her argument overlooks the fundamental principle that the inflation index and productivity factor must be appropriately aligned with the costs covered by the revenue adjustment mechanism. Using an economy-wide output-price index such as GDP-PI would require additional adjustments to account for differences between economy-wide productivity and price changes and those experienced by electric distribution utilities. Ms. Griffin also does not demonstrate why an economy-wide inflation index would provide a more appropriate measure of the

[12] Griffin, *Direct Testimony*, pp. 18–19, 35–37, 79.

Company's OM&A input-price changes or explain how the corresponding productivity factor should be adjusted to maintain methodological consistency.

Ms. Griffin argues that the proposed 0.30% Consumer Dividend is too low given LEI's findings that CL&P's historical OM&A costs exceeded its econometric benchmark. However, she appears to misunderstand that these historical benchmarking deviations measure relative cost levels, and do not indicate the annual rate at which those differences could reasonably and sustainably be reduced. Ms. Griffin also does not establish how the observed cost differences should be translated into a different annual Consumer Dividend or identify a substantiated alternative percentage.

Furthermore, Ms. Griffin believes that the proposed Consumer Dividend does not adequately reflect CL&P's relative inefficiency and proposes a tiered approach under which less efficient utilities would receive higher Consumer Dividends.[13] However, she does not specify the proposed performance thresholds, corresponding Consumer Dividend percentages, or the resulting factor for CL&P.

Ms. Wilson and Mr. Tully prefer that PURA approve a one-year rate plan, notwithstanding OCC's express recognition in RE01 that a four-year MRP strengthens cost-containment incentives and benefits ratepayers.[14] If a PBMRP is approved, they recommend a zero X-Factor. They question the selection of output measures, treatment of unusual observations, absence of formal structural-break or outlier testing, and use of historical results for a

[13] Griffin, *Direct Testimony*, 69–70.

[14] Connecticut Office of Consumer Counsel, *Comments on the Revised Straw Proposal*, Docket No. 21-05-15RE01 (March 26, 2025), p. 4, as summarized in the RE01 PFD, p. 9.

prospective adjustment.[15] However, several of the methodological alternatives they identify have already been examined by LEI, as discussed above.

Ms. Wilson and Mr. Tully further argue that the separate F-Factor could encourage capital investment over operating solutions or the capitalization of operating costs. However, while they cite general concerns regarding capital expenditure bias, they provide no company-specific evidence or quantitative analysis demonstrating that the proposed F-Factor would lead to such outcomes. They acknowledge the OM&A cap's operating-efficiency incentive and the F-Factor's recovery limits but question their adequacy and the administrative requirements of annual capital reviews.[16]

Q. What is your high-level response to the opinions expressed by the intervenors' witnesses?

A. The intervenors' witnesses appear to recognize the relevance of productivity evidence, benchmarking, and efficiency incentive properties of the Company's PBMRP. For example, Ms. Wilson and Mr. Tully recognize that the OM&A revenue cap creates incentives for operating efficiencies and that the Consumer Dividend allows customers to share in expected efficiency gains.[17] The concerns they raise and questions they pose in their testimonies reflect, in my opinion, the relative "newness" of PBR in Connecticut. In the absence of established Connecticut precedents and practical experience implementing PBR frameworks, the intervenors' witnesses have drawn on alternative sources of information and requested various additional tests, some of which may not be directly applicable to the Company's proposed PBMRP or provide meaningful guidance for

[15] Gennelle Wilson and Oliver Tully, *Direct Testimony on Behalf of the Office of Consumer Counsel*, Docket No. 26-05-10 (Connecticut Public Utilities Regulatory Authority, October 21, 2026), 10, 35–43.

[16] Wilson and Tully, *Direct Testimony*, 17–26.

[17] Wilson and Tully, *Direct Testimony*, 22, 43–45.

determining its parameters. I also note that none of the intervenors' witnesses presented a comprehensive, independently estimated study of U.S. electric distribution industry productivity that would provide a rigorous and comparable alternative to the analysis presented in my direct testimony. Moreover, several of their proposed alternatives are not sufficiently developed or supported by the analysis necessary to establish how they should be implemented or whether they would produce more appropriate results. Section IV addresses the critiques of the proposed regulatory framework, including the I-Factor and X-Factor alignment, capital recovery and incentives, the BLS comparisons, and departures from RE01. Section V addresses arguments on LEI's methodology, sensitivity analyses, study period, unusual observations, and output measures. Section VI addresses the interpretation of benchmarking evidence, the basis for the initial Consumer Dividend, and its subsequent operation and customer impacts.

IV. Response to Critiques of the Proposed PBR Framework

A. Interpretation and Validity of Negative TFP

Q. Dr. Taylor and Ms. Griffin are concerned with a negative TFP/negative X-Factor.[18] How would you respond to their concerns?

A. A negative productivity trend is not abnormal, nor does it necessarily indicate inefficiencies or mute a utility's incentive to control OM&A costs.

A negative TFP/PFP can be a valid empirical result and does not, by itself, indicate an error in the methodology or establish that an industry or utility is inefficient. It simply means that measured input quantities increased more rapidly than measured output over the period examined. As explained in my direct testimony, this outcome is entirely possible, especially when the sector is being asked to expand spending and investment to serve customers under an index-based productivity calculation.[19]

Many other TFP studies in recent years have concluded that the electric distribution utility has been experiencing a negative productivity trend, as discussed in my testimony.[20]

Electric distribution utilities may experience negative measured total productivity even while undertaking prudent and necessary investments. For example, infrastructure-replacement or modernization expenditures may increase capital inputs without a corresponding increase in customer count. Capital inputs affect capital productivity and total TFP; they do not directly enter the OM&A PFP calculation. For OM&A PFP, the relevant corollary is the need for increased operating and maintenance expenditure in the underlying FERC Form 1 accounts. For example, Account 593 (Maintenance of Overhead

[18] Taylor, *Direct Testimony*, 37–38; Griffin, *Direct Testimony*, 33–37.

[19] Frayer, *Direct Testimony*, 44–46.

[20] Frayer, *Direct Testimony*, 1, 43.

Lines), has been the principal driver of sustained distribution maintenance cost increases, alongside utility-specific increases in Account 598 (Maintenance of Miscellaneous Distribution Plant), and Account 925 (Injuries and Damages). These expenditure pressures are consistent with documented increases in vegetation management, risk-informed inspections and repairs, wildfire mitigation, storm restoration, and associated liability costs.

The incentive to improve operating efficiency arises from the Company's opportunity to manage its actual covered OM&A expenditures below the predetermined revenue allowance during the PBMRP term. This incentive does not depend on the historical productivity estimate (and X-Factor) being a substantive positive value. For example, assume a base-year OM&A revenue allowance of $100 million, an annual inflation factor of 2.0%, and an X-Factor of negative 0.5%. Under these assumptions, and assuming no other adjustments, the predetermined OM&A revenue allowance for the following year would be $102.5 million. If the Company improves its operating efficiency and limits its actual covered OM&A expenditures to $100.5 million, it would achieve $2 million in savings relative to the predetermined allowance. Thus, even with a negative X-Factor, the Company would have an incentive to improve operating efficiency because reducing actual expenditures below the predetermined allowance creates an opportunity to increase earnings, subject to any applicable earnings-sharing provisions.

B. Appropriateness of an OM&A PFP and OM&A-related input inflation index

Q. Ms. Griffin argues that a revenue cap can contain costs only if it applies to the full revenue requirement.[21] Can an OM&A-specific revenue cap still provide cost-containment incentives, and have other regulators approved similar approaches that provide separate mechanisms for capital recovery?

A. Yes, an OM&A-specific revenue cap continues to provide an incentive to control operating costs because the covered OM&A revenues are determined through a predetermined formula rather than automatically adjusted to reflect actual expenditures, as explained above. The Company therefore has an incentive to manage its actual covered OM&A costs below the established allowance, as doing so can improve its earnings. Conversely, if actual covered OM&A expenditures exceed the allowance, the Company would generally bear the additional costs, subject to applicable cost-recovery mechanisms. Thus, applying the I-X formula to the covered OM&A allowance does not eliminate the incentive to improve operating efficiency.

The Company's proposal to apply the I-X formula only to OM&A also reflects its anticipated capital investment requirements. As explained in my direct testimony, an I-X mechanism based on historical productivity trends may not provide sufficient revenue support when future capital investment needs differ materially from historical experience.[22] The Company's five-year capital plan identifies substantial investment requirements, and the proposed F-Factor is designed to provide a mechanism for recovering the costs of qualifying investments, subject to approved forecasts, annual reconciliation, and prudence review.[23]

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[21] Griffin, *Direct Testimony*, 36–37.

[22] Frayer, *Direct Testimony*, Exhibit CLP-PBR-1, Docket No. 26-05-10 (July 14, 2026), 23–24, 68–71.

[23] Scacco, Chatterjee, and Horton, *Joint Direct Testimony,* 65–69, 101–102.

Regulatory precedents also demonstrate that an OM&A-specific revenue cap can be implemented alongside a separate capital recovery mechanism. In D.P.U. 23-150, the Massachusetts Department of Public Utilities ("MA DPU") approved National Grid's O&M-specific productivity factor together with a composite inflation index designed to reflect O&M input-price changes. The MA DPU determined that an additional adjustment for differences between industry and economy-wide productivity was unnecessary because the inflation index reflected utility input prices rather than broader economy-wide output prices. Accordingly, the MA DPU approved an O&M X-Factor of 0.21%.[24]

The MA DPU also approved a separate capital recovery mechanism, known as the Infrastructure, Safety, Reliability, and Electrification ("ISRE") mechanism, for core distribution capital investments. The MA DPU recognized the need to provide funding for capital investments necessary to maintain safe and reliable service while preserving incentives for operating efficiency. The approved mechanism includes regulatory oversight and a cap on annual increases in capital-related revenue requirements equal to 3% of total revenues.[25]

Similarly, the British Columbia Utilities Commission ("BCUC") approved FortisBC Inc.'s 2025–2027 rate framework, which applies an O&M-specific inflation index and a 0.45% productivity adjustment comprising a 0.20% industry O&M PFP component and a 0.25% stretch factor, while addressing capital through separate provisions.[26]

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[24] Massachusetts Department of Public Utilities, *Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid*, D.P.U. 23-150, Final Order (September 30, 2024), 83–87.

[25] Massachusetts DPU, D.P.U. 23-150, *Final Order*, 44–50, 56.

[26] British Columbia Utilities Commission, *FortisBC Energy Inc. and FortisBC Inc. 2025-2027 Rate Setting Framework*, Decision and Orders G-69-25 and G-70-25 (March 18, 2025), sec. 3.1.5 and Order G-70-25, item 2; CL&P, response to OCC-442.

These precedents illustrate the use of an O&M-specific inflation and productivity framework with separate capital-recovery provisions. Although the specific mechanisms and parameters differ, both regulators recognized that operating and capital costs can be addressed through different regulatory mechanisms within an integrated PBR framework. The specific terms of those mechanisms must still be considered when evaluating the Company's proposed F-Factor.

Q. Ms. Griffin questions limiting the indexed revenue cap to OM&A costs. Dr. Taylor also recommends a TFP-based X-Factor as one alternative if the revenue cap applies to total costs, while Ms. Wilson and Mr. Tully question the use of an OM&A-specific inflation index rather than the economy-wide index.[27] Why are OM&A PFP and the proposed composite I-Factor appropriate for the Company's OM&A-only cap?

A. The productivity and inflation measures in a revenue adjustment mechanism need to align with the costs covered by the revenue adjustment mechanism. Since the Company's proposed I-X formula applies to covered OM&A costs, while capital-related costs are addressed through a separate funding mechanism, it should be intuitive to all stakeholders that OM&A PFP and an OM&A focused input price inflation index are the appropriate measures.

OM&A PFP measures changes in industry output relative to the quantity of OM&A inputs used to serve customers. In contrast, TFP measures changes in output (proxied by number of customers) relative to both OM&A and capital inputs. Applying a TFP measure, as suggested by Ms. Griffin and Dr. Taylor, directly to an OM&A-only revenue adjustment mechanism would incorporate capital productivity trends into a formula that does not

[27] Griffin, *Direct Testimony*, 33–37; Wilson and Tully, *Direct Testimony*, 45–46; Taylor, *Direct Testimony*, 34–35.

govern capital cost recovery. This would create a mismatch between the productivity adjustment and the costs to which it applies.

The I-Factor and X-Factor must be calibrated consistently because they jointly determine the annual adjustment to the Company's covered OM&A revenue allowance. The I-Factor should reflect the input-price environment relevant to the OM&A activities whose productivity is measured by the X-Factor. Otherwise, the revenue adjustment mechanism may not accurately reflect changes in the industry's OM&A input costs.

Consistent with these principles, LEI recommended an I-Factor that combines the Employment Cost Index ("ECI") for utility labor costs and Gross Domestic Product Implicit Price Deflator for Final Sales to Domestic Purchasers ("GDP-FSDP") for non-labor OM&A costs, weighted using historical industry labor and non-labor cost shares. As discussed in the LEI Industry TFP Study Report, when the I-Factor is calibrated to reflect the relevant OM&A input-price changes and paired with the corresponding industry OM&A PFP measure, additional adjustments for economy-wide productivity and input-price differentials are not required. Such adjustments would generally be necessary if the Company instead used a broad economy-wide inflation index on its own.[28]

Accordingly, the appropriateness of a productivity factor cannot be determined independently of the inflation index and the costs subject to the revenue adjustment mechanism.

[28] Frayer, *Direct Testimony,* 62-64; CL&P, response to OCC-428; response to UPA-051.

Q. Ms. Wilson and Mr. Tully object to the proposed zero floor on the I-Factor because it prevents negative inflation from flowing through that component of the formula.[29] Do you share their concern?

A. No, I do not, because in fact many of the costs for a utility under OM&A pose limited scope for deflation. For example, wage increases for CL&P's union employees are established through multi-year collective bargaining agreements and therefore do not necessarily adjust downward in response to short-term changes in inflation. PURA's independent management audit of Eversource's Connecticut companies confirms that annual wage increases are stipulated in multi-year labor agreements, with negotiated annual increases for CL&P's union employees generally ranging from 2.75% to 3.5% during 2019–2022.[30] Consequently, negative inflation in a particular year would not necessarily translate into a corresponding reduction in the Company's actual OM&A costs.

The Eversource Leadership Panel proposes a zero floor and a 5% cap on the I-Factor. As discussed in their testimony, the floor limits the Company's exposure to reductions in the underlying inflation index, while the cap limits the I-Factor applied to customers during higher-inflation periods.[31] Together, these provisions establish boundaries on the annual inflation adjustment, protecting the Company against negative inflation adjustments that may not reflect corresponding reductions in its underlying costs, while limiting customers' exposure to unusually high inflation adjustments.

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[29] Wilson and Tully, *Direct Testimony*, 46.

[30] FTI Consulting, *Management Audit of Eversource Energy's Connecticut Companies,* Public Version, RFP No. 2022-01 (February 11, 2025), 4-19.

[31] *Donald J. Scacco, Jr., Digaunto Chatterjee, and Douglas P. Horton*, *Joint Direct Testimony* , 91–92.

C. Capital Recovery and Efficiency Incentives under the Proposed F-Factor

Q. Ms. Griffin raises concerns about the Company's proposed F-Factor. Do you have any further comments on the proposed F-Factor given Ms. Griffin's stated concerns?

A. Ms. Griffin's comments around the F-Factor can be distilled to two areas: why should the utility get recovery of capital costs within the PBR term and why is the F-Factor different from proposed CT-Bar in RE01.[32] The proposed F-Factor is intended to provide a predictable mechanism for recovering of the costs associated with capital investments placed in service during the four-year PBMRP, including the cost of financing those investments. As discussed in my direct testimony, capital investments involve financing costs when they are undertaken. Deferring recovery of those costs (the "return" component) until the next rate case may create additional financial pressure on the Company during the multi-year stay-out period[33] and will likely cause more rate shock at the start of the next term – which is not in the best interests of consumers.

Indeed, the CT-Bar contemplated in the RE01 PFD was proposing to defer recovery of the return on capital investment until a subsequent rate case, and the EDCs noted in response to the RE01 RFD that this would have resulted in significant under-recovery.[34,35]

The proposed F-Factor includes several safeguards governing the review and recovery of capital expenditures. First, PURA reviews and approves the capital forecast used to establish the plan's allowance.[36] Second, the annual RAM proceeding reconciles actual

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[32] Griffin, *Direct Testimony*, 41-43, 45-46.

[33] Frayer, *Direct Testimony*, Exhibit CLP-PBR-1, 68–71.

[34] Connecticut Public Utilities Regulatory Authority ("PURA"), PURA Investigation into Revenue Adjustment Mechanisms for a Performance-Based Regulation Framework, Docket No. 21-05-15RE01, *Proposed Final Decision (July 14, 2025)*, 31–39; Scacco, Chatterjee, and Horton, *Joint Direct Testimony*, 101–103.

[35] PURA, R*E01 Proposed Final Decision*,. 32–33, and Appendix A.

[36] The Company separately proposes adjusting the forecast caps if PURA approves advanced metering infrastructure ("AMI") investment.

qualifying capital placed in service with the approved forecast. Third, following PURA's determination that the investments are prudent, used, and useful, the capital revenue requirement ultimately recoverable after reconciliation is limited to the lesser of the approved forecasted requirement and the requirement associated with actual plant in service. Downward reconciliation protects customers when actual eligible additions fall short of the forecast, and excess investment cannot be recovered through the F-Factor during the initial four-year term.

In summary, under the proposed F-Factor, the Company is not guaranteed recovery of either the full capital forecast or all actual capital expenditures. Although the mechanism allows the Company to recover a return on capital investments during the PBMRP term, annual reconciliation and prudence review determine the amount ultimately recoverable. These limits govern final recovery, while the collection schedule determines when customers make payments. My support for the structure reflects the financing rationale and those recovery constraints, considered together.[37]

Q. Ms. Wilson and Mr. Tully argue that possible recovery of above-forecast expenditures in a subsequent rate case weakens capital-cost discipline.[38] Does that possibility eliminate cost containment incentives of the F-Factor?

A. No. As explained in my direct testimony and my response to Ms. Griffin above, the approved forecast establishes a ceiling on the capital revenue requirement recoverable through the F-Factor during the initial four-year PBMRP term. This limitation creates financial exposure for the Company during the four-year stay-out period and provides an

[37] Griffin, *Direct Testimony*, 42–43; Frayer, *Direct Testimony*, Exhibit CLP-PBR-1, 68–71.

[38] Wilson and Tully, *Direct Testimony*, 21.

incentive to develop realistic capital forecasts, prioritize necessary investments, and manage project costs within the approved allowance.

Although above-forecast expenditures may be considered in a subsequent base rate proceeding or successor PBMRP, recovery is not automatic. The Company would need to justify those expenditures and obtain PURA's approval.[39] But during the PBMRP term, the Company bears the financial consequences of expenditures that are not eligible for recovery through the F-Factor. Thus, the possibility of future recovery is uncertain during the PBMRP term, and therefore the incentives for the Company to live within the budget ceiling set by the F-Factor design are strong.

Downward reconciliation does, however, take away the opportunity to retain savings from underspending. So as compared to a fixed capital allowance that the Company could retain regardless of actual expenditure, the downward reconciliation may dampen the incentives to cut costs at the margin. However, the Company realized that the reconciliation feature would be necessary to accommodate PURA's and stakeholders' worries around using forecasts. The incentive associated with the forecast ceiling is therefore principally to avoid the financing and recovery risks of exceeding the allowance, while the downward reconciliation creates a safeguard against inflated forecasts. Overall, I believe this is a good compromise given the circumstances for the Company (i.e., the significant capital investment needs over the PBMRP term) and recognition of the varying concerns that PURA and stakeholders may have.

[39] Scacco, Chatterjee, and Horton, *Joint Direct Testimony*, Exhibit CLP-ELP-1, 101–102; Wilson and Tully, *Direct Testimony*, 21, 23–24.

Thus, the proposed F-Factor provides a meaningful constraint on capital cost recovery during the PBMRP term. My support rests on that constraint, timely recovery of prudent investment costs, and the customer protections discussed above, considered together.

Q. Ms. Griffin argues that prudence review may permit a capital project even when a cheaper operating or non-wires alternative is available.[40] Ms. Wilson and Mr. Tully also raise concerns about capital bias and capitalization of OM&A expenses.[41] In your opinion, how does the proposed framework address these investment-related concerns?

A. The basic reality of the Company's PBMRP plan is that they will be facing a revenue cap with various performance incentives. Moreover, to set the F-Factor, the Company will have had to provide its capital investment plans and forecasts. Operating and capital expenditures are inherently different and not perfect substitutes. That said, the structure of the PBMRP does not change the best practices that Eversource would apply to seeking out the best option – be that an operating solution, a capital investment or a non-wires alternative ("NWA"). The revenue cap construct, with all the elements, will drive the Company to seek the best combination of resources to operate the utility and meet, and preferably surpass, its performance incentives.

Forecast limits, reconciliation, prudence review, and accounting requirements (which require adherence to stated capitalization policies) will each contribute to limit the Company's ability to pursue more than the efficient levels of capital investment and therefore should address intervenors' witnesses' concerns on capital bias.

For example, the Company acknowledges that its capital investments during the PBMRP term will continue to be subject to prudency reviews by PURA. Ms. Griffin herself

[40] Griffin, *Direct Testimony*, 24–25.

[41] Wilson and Tully, *Direct Testimony*, 21–22.

acknowledges that prudence review examines wires versus non-wires investments, procurement, project design, and cost management.[42]

Q. Ms. Wilson and Mr. Tully argue that annual capital reconciliation and prudence review would introduce administrative complexity and reduce the efficiencies of a multi-year rate plan. Do these reviews undermine the benefits of the Company's PBMRP?

A. Annual capital reconciliation and prudence review will require regulatory resources. However, a multi-year rate plan does not necessarily eliminate all annual interactions between the regulator and the regulated firm. Indeed, PBR plans typically have some form of annual compliance filing. These are intentionally much simpler than a full rate case, and I would expect that the annual process at PURA would be simpler than a full rate case.

Under the Company's proposed PBMRP, the covered OM&A allowance would be adjusted through the I-X formula, while capital-related costs would be addressed through a separate annual reconciliation process. This allows PURA to review actual capital additions and their prudence without necessarily reopening the Company's entire revenue requirement each year.

Therefore, I am expecting some opportunity for administrative efficiency gains relative to a counterfactual where the Company does not have a stay out provision and must file frequent cost of service rate cases.

[42] Griffin, *Direct Testimony*, 41.

D. Alternative sources for setting the X factor

Q. Dr. Taylor recommends considering the public BLS utilities MFP estimate of 0.457% for setting the X Factor, especially if the indexed revenue cap includes both OM&A and capital costs.[43] He also questions the difference between that estimate and LEI's industry TFP results. Does the public BLS utilities MFP index support a different X-Factor?

A. The BLS utilities MFP index and LEI's Industry TFP for U.S. electric distribution firms examine very different activities and use different measurement approaches. As explained in the written response to CLF-AC-016, the BLS utilities MFP index covers the broader utilities industry (NAICS 22), including electric generation, transmission and distribution, natural gas, steam, water supply, and sewage services.[44] In contrast, LEI's study focuses specifically on the U.S. electric distribution industry. It would be wholly inappropriate to take productivity trends from the electric generation sector – given, for example, how fast technology is evolving – and apply it to the electric distribution industry.

The studies also differ in their output and input measures. LEI measures distribution output using the number of customers served and calculates productivity based on real OM&A and capital inputs – both standard approaches in regard to TFP studies for ratemaking purposes. BLS measures real sectoral output, which represents the quantity of goods and services produced for delivery outside the utilities sector, adjusted to remove the effects of price changes and to avoid double counting of transactions within the sector. BLS includes capital, labor, energy, materials, and purchased services as inputs.

[43] Taylor, *Direct Testimony*, 25–27, 34–35.

[44] CL&P response to CLF-AC-016(a)–(c); LEI, *Industry TFP Study*, Exhibit CLP-PBR-2, 25.

These differences – in sectoral coverage and data used – can produce different productivity estimates even when the same mathematical approach is applied.[45]

LEI does not dispute Dr. Taylor's calculation of approximately 0.457% from the published BLS data; as confirmed in response to CLF-AC-016. However, the BLS estimate is not a like-for-like measure of electric distribution productivity. Subtracting LEI's −1.41% total TFP estimate [46] from the broader BLS estimate does not isolate the productivity contribution of generation, transmission, natural gas, water, or other utility activities. Such a conclusion would require consistently measured productivity estimates for the underlying industries and the appropriate aggregation weights. The numerical difference does not establish Dr. Taylor's asserted original minimum difference of 1.869 percentage points or show that LEI's methodology understates electric distribution productivity.[47] It also does not provide an alternative estimate of the OM&A PFP applicable to the Company's proposed cap, as discussed in Section IV.B.

Q. Dr. Taylor also notes that the average annual total factor productivity growth of 0.678% for the U.S. private business sector, based on another BLS MFP index, and suggests that private businesses may achieve higher productivity because they face stronger financial incentives to control costs.[48] Does this make the private business sector TFP a more appropriate measure for determining the Company's X-Factor?

A. No, I do not believe the BLS private business sector TFP is an appropriate source for setting the value of the X-Factor for the Company's PBMRP plan. A "private business" pursuant to BLS is defined as any privately-owned (non-government) establishment that is operated for profit. The "private business sector" equals the business sector minus government

[45] CL&P, response to CLF-AC-016(a)–(c).

[46] With the errata, the -1.41% average TFP growth from 2005-2024 is -1.40%.

[47] CL&P, response to CLF-AC-016(a)–(c); Taylor, *Direct Testimony*, 26–28.

[48] Taylor, *Direct Testimony*, 27–30.

enterprises.[49] This classification does not distinguish between businesses operating in competitive markets and those subject to economic regulation. The private business sector therefore includes regulated investor-owned utilities ("IOUs"). Indeed, all EDCs included in LEI's Industry TFP Study are IOUs, which also operate for profit.

Although for-profit incentive structures can encourage firms to improve efficiency, and the EDCs considered in LEI's Industry TFP Study are all for profit utilities,[50] the potential for productivity growth varies significantly by sector and reflects the business activities of the firms, technological opportunities, and growth potential (including in their customer base).

The BLS private business sector encompasses a broad range of industries, including agriculture, mining, construction, manufacturing, utilities, trade, transportation, financial services, and other service industries.[51] These industries have different operating characteristics, cost structures, and productivity drivers. As mentioned above, even the BLS utilities industry includes activities beyond electric distribution, such as electric generation and transmission, natural gas distribution, and water and sewer services. The figure below illustrates these differences by comparing year-over-year TFP growth across selected U.S. industries and the broader private business sector from 2005 through 2024. Productivity growth varies considerably across industries and over time, with the utilities industry exhibiting a different pattern from the overall private business sector. This comparison reinforces that the productivity performance of the broader private business

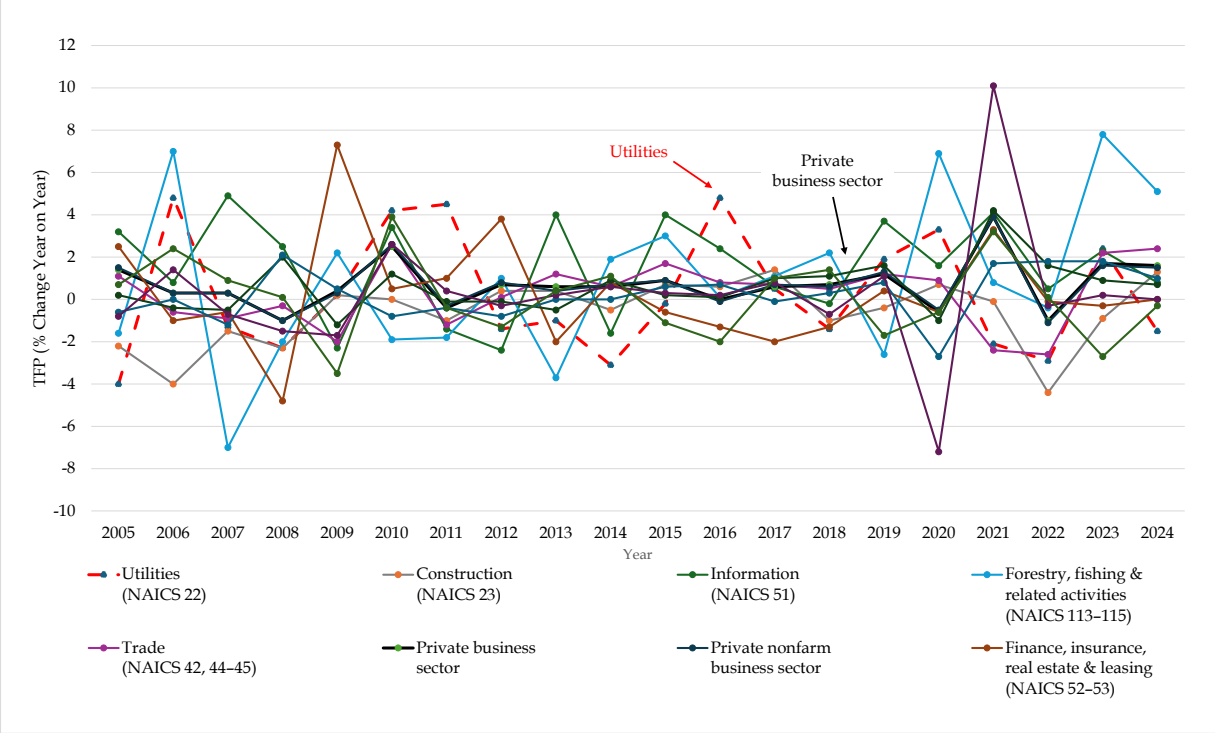
[49] U.S. Bureau of Labor Statistics, "Productivity Glossary," definition of "Private Business Sector," <https://www.bls.gov/productivity/glossary.htm >

[50] FERC Form 1 is a mandatory annual census of major investor-owned electric utilities that meet specified criteria for sales. [Source: U.S. Energy Information Administration, *Electricity Market Module of the National Energy Modeling System: Model Documentation 2025* (Washington, DC: U.S. Department of Energy, July 2025), 95, 197, <https://www.eia.gov/outlooks/aeo/nems/documentation/electricity/pdf/EMM_AEO2025.pdf>

[51] U.S. Bureau of Labor Statistics, *Total Factor Productivity for Major Industries – 2024*; CL&P, Response to CLF-AC-020.

sector should not be assumed to represent the productivity growth achievable by electric distribution utilities.

Figure 1. Year-over-Year TFP Growth Across Selected U.S. Industries and Sectors, 2005–2024



Source: U.S. Bureau of Labor Statistics, Major Sector and Major Industry Total Factor Productivity. https://www.bls.gov/productivity/data.htm

E. Comparison of the Proposed PBR Framework with RE01

Q. Ms. Griffin argues that the Company's proposed PBMRP departs from the framework contemplated in the RE01 PFD.[52] How does the Company's proposal compare with the RE01 framework, and what justifies the differences?

A. The Company's proposed PBMRP builds upon the objectives and regulatory principles developed in Docket No. 21-05-15 and its subsequent proceedings, including providing incentives for cost efficiency, encouraging utility performance, and sharing benefits with customers. Although the proposal differs from certain elements of the RE01 PFD, that framework was not adopted in a final order and does not prescribe a single approach to PBR. PURA has also expressly recognized that the Company may propose a PBR framework for consideration in this proceeding.[53]

From an economic perspective, the Company's proposal is designed to achieve the objectives of PBR while reflecting its specific operating conditions and investment requirements. In particular, the proposal applies an indexed revenue cap to OM&A costs, with a corresponding productivity factor, while addressing capital recovery through a separate mechanism. These design choices should be evaluated based on their merits and their ability to advance PBR objectives, rather than solely on whether they replicate the RE01 PFD. Other Company witnesses address the procedural and regulatory considerations in greater detail.

As shown in Table 1 below, the Company's proposal incorporates several principal elements contemplated in the RE01 PFD, including a four-year rate plan, empirical productivity and benchmarking analyses to inform revenue adjustments, mechanisms to

[52] Griffin, *Direct Testimony*, 29–36.

[53] Connecticut Public Utilities Regulatory Authority, Docket No. 21-05-15RE01, *PURA Investigation into Revenue Adjustment Mechanisms for a Performance-Based Regulation Framework*, Proposed Final Decision (July 14, 2025), 1.

support necessary capital investment, performance accountability, earnings sharing, and revenue decoupling. However, certain elements have been structured differently to reflect the statutory conditions and commercial realities that the Company expects to face during the term of the proposed PBMRP.

At its most basic, the Company's proposed PBMRP is a revenue cap as contemplated in the RE01 PFD, although capital will not be subject to an I-X formula but developed based on forecasts. The I-X formula is consistently designed with the theory and empirical evidence, as contemplated by RE01 PFD. The going in rates, the term, presence of a positive Consumer Dividend, performance incentives, earning sharing, and revenue decoupling are consistent as well between the RE01 PFD and the Company's proposed PBMRP. Capital recovery is addressed through the proposed F-Factor, which provides for recovery of qualifying capital costs, subject to approved forecasts, annual reconciliation, and prudence review. This differs from the CT-Bar mechanism contemplated in RE01, particularly with respect to the cost of capital investment.

The differences in the scope of the revenue cap do not mean that the Company's proposal lacks cost-containment incentives. Under the proposed PBMRP, the covered OM&A revenue allowance is adjusted through a predetermined I-X formula and Consumer Dividend rather than being reset annually to actual covered OM&A spending. This provides a direct incentive for the Company to manage OM&A costs efficiently relative to its allowed revenue trajectory. The capital recovery mechanism, while structured differently from an indexed cap, maintains efficiency incentives because the Company still faces a cap on the levels of spending that will flow through rates. The proposed PBMRP plan also takes away any incentive for the Company to over-state its capital expenditure forecast (given the downward reconciliation).

Table 1. Comparison of the RE01 proposal and the Company proposal

Element	RE01 Proposed Final Decision	CL&P's proposed PBMRP
Empirical analysis	Industry TFP evidence and utility-specific benchmarking inform the X-Factor and stretch factor	LEI provided industry TFP/PFP and cost benchmarking; OM&A PFP is used for the Company's proposed index-based revenue adjustment mechanism for OM&A[54]
Going-in rates	Cost-of-service review, with specified adjustments and review of eligible plant	Historical test year ending December 31, 2025, adjusted for known and measurable changes, subject to PURA approval[55]
Plan term	Four years; next rate case during Year 4. Written stay-out acceptance after the final decision, subject to off-ramps	Four-year PBMRP terms; proposed stay-out commitment subject to the final approved terms[56]
Inflation and productivity	Economy-wide GDP price index and TFP-informed X-Factor (with necessary adjustments for input price differentials, etc.) within a broader revenue-cap formula with specified exclusions	Composite OM&A input-price index for I-Factor with floor/cap and OM&A PFP-based X-Factor (without any adjustments for input price differentials, etc.) plus F-Factor[57]
Consumer Dividend	Positive stretch factor, informed by benchmarking and determined in the rate proceeding	Initial 0.30% Consumer Dividend, with adjustments based on specified operating-cost performance[58]
Capital funding	CT-Bar linked to the capital plan; incremental depreciation and specified taxes, excluding return during the plan; downward reconciliation and later prudence review	Forecast-based F-Factor includes return, deprecation and taxes recovery limited by forecast and qualifying actual plant; annual downward reconciliation and prudence review[59]
Performance mechanisms	Performance and integrated distribution system planning requirements apply independently of MRP acceptance; detailed PIMs addressed in related proceedings	Proposed performance metrics, incentives and penalties contingent on PBMRP approval[60]
Earnings sharing	Upside-only 50/50 sharing, without deadbands or tiers; specified return on equity ("ROE") calculation and eligible-cost rules	Upside-only 50/50 sharing above authorized ROE; customer portion credited directly to customers[61]
Revenue decoupling	Continued annual RDM true-up, with specified revenue-category exclusions	Continues RDM, with proposed carrying charges on over- and under-recoveries[62]

Economic literature recognizes that PBR frameworks can combine different regulatory mechanisms and emphasizes evaluating their collective incentive effects. For example, Joskow discusses approaches that establish initial rates through cost-of-service review and apply separate price indices to operating and capital costs.[63] Meitzen, Schoech, and Weisman similarly discuss supplemental capital mechanisms alongside I-X formulas and emphasize the importance of evaluating the combined effects of the various PBR components, including their implications for cost-containment incentives.[64] Stephen Littlechild, who originally developed the RPI–X approach to incentive regulation, also recognizes that incentive regulation has evolved beyond the traditional price-cap formula. Littlechild discusses various adaptations of incentive regulation, including mechanisms that accommodate differing capital investment requirements, as well as the incorporation of earnings-sharing and financial-reopener provisions into subsequent price-cap

[54] PURA, RE01 Proposed Final Decision, 22–25; Frayer, *Direct Testimony*, Exhibit CLP-PBR-1, 62–64.

[55] PURA, RE01 Proposed Final Decision, 15–20; Scacco, Chatterjee, and Horton, *Joint Direct Testimony*, Exhibit CLP-ELP-1, 81.

[56] PURA, RE01 Proposed Final Decision, 8–10; Scacco, Chatterjee, and Horton, *Joint Direct Testimony*, Exhibit CLP-ELP-1, 84–86, 98–99.

[57] PURA, RE01 Proposed Final Decision, 20–25; Frayer, *Direct Testimony*, Exhibit CLP-PBR-1, 62–64; CL&P, response to OCC-428, 1; Scacco, Chatterjee, and Horton, *Joint Direct Testimony*, Exhibit CLP-ELP-1, 91–92.

[58] PURA, RE01 Proposed Final Decision, 22, 25; Scacco, Chatterjee, and Horton, *Joint Direct Testimony*, Exhibit CLP-ELP-1, 92–97.

[59] PURA, RE01 Proposed Final Decision, 35–39; Scacco, Chatterjee, and Horton, *Joint Direct Testimony*, Exhibit CLP-ELP-1, 101–103.

[60] PURA, RE01 Proposed Final Decision, 10; Scacco, Chatterjee, and Horton, *Joint Direct Testimony*, Exhibit CLP-ELP-1, 115.

[61] PURA, RE01 Proposed Final Decision, 46–53; Scacco, Chatterjee, and Horton, *Joint Direct Testimony*, Exhibit CLP-ELP-1, 97–99.

[62] PURA, RE01 Proposed Final Decision, 53–55; Scacco, Chatterjee, and Horton, *Joint Direct Testimony*, Exhibit CLP-ELP-1, 120.

[63] Paul L. Joskow, "The Expansion of Incentive (Performance-Based) Regulation of Electricity Distribution and Transmission in the United States," Review of Industrial Organization 65 (2024), sec. 4.2.3.

[64] Mark E. Meitzen, Philip E. Schoech, and Dennis L. Weisman, "The Alphabet of PBR in Electric Power: Why X Does Not Tell the Whole Story," The Electricity Journal 30, no. 8 (October 2017), pp. 30–37.

frameworks.[65] He further emphasizes that regulatory arrangements can evolve in response to changing circumstances while maintaining appropriate consideration of their effects on incentives.[66]

Regulatory precedents involving National Grid in Massachusetts and FortisBC, discussed in Section IV.B, also illustrate the use of OM&A-specific indexed mechanisms alongside separate capital recovery arrangements.

Thus, while CL&P's proposal is not identical to the RE01 PFD framework, it incorporates several of its fundamental elements. In my opinion, the appropriate assessment is whether the proposed mechanisms, considered collectively, provide meaningful efficiency incentives, appropriate customer protections, and support for necessary infrastructure investment, rather than whether every feature is identical to the approach contemplated in RE01.

Q. Ms. Wilson and Mr. Tully recommend a one-year rate plan while PURA completes its generic PBR and distribution-planning proceedings.[67] What are your views around this alternative proposal?

A. I do not believe that delaying implementation of the proposed PBMRP would be in customers' best interests. Adopting a one-year rate plan would postpone the customer benefits associated with the proposed PBMRP, including the Consumer Dividend, which provides customers with a share of expected efficiency gains. It would also delay the

[65] Stephen Littlechild, "Incentive Regulation From the Inside: Resetting 12 RPI-X Price Caps in 1993–1995," Review of Industrial Organization 65, no. 2 (2024). < https://www.jbs.cam.ac.uk/wp-content/uploads/2024/10/2024-eprg-littlechild-incentive-regulation.pdf>

[66] Ibid.

[67] Wilson and Tully, *Direct Testimony*, 9–10.

introduction of stronger incentives for the Company to improve operating efficiency and manage costs within a predetermined revenue allowance.

Having worked in other jurisdictions, some of which were starting out with PBR implementation like Connecticut, I see no rational reason why PURA could not consider the proposed four-year PBMRP within this proceeding. The one-year bridge proposed by Ms. Wilson and Mr. Tully would not provide the same committed horizon and incentives. If the Company has an opportunity to pursue efficiency improvements that may require upfront expenditures or take several years to realize their full benefits, the one-year bridge term will not provide the necessary pathway for the incentives to materialize.

The proposed four-year term is also consistent with the duration contemplated in the RE01 PFD. Although the Company's proposed mechanisms differ in certain respects from the RE01 framework, both recognize the role of a multi-year rate plan in establishing predictable revenue adjustments and incentives for cost containment.

V. Responses to Critiques of the TFP Study

A. Methodology, Sensitivity Analyses, and Review of the Study

Q. Dr. Taylor identifies alternative methodologies, including stochastic frontier analysis, and recommends that PURA commission a frontier study.[68] What is your reaction to Dr. Taylor's proposal?

A. I believe Dr. Taylor is referring to what is known as stochastic frontier analysis ("SFA") in the field of productivity analysis. I describe it briefly as a technique in Section 2.2 of my Industry TFP Study Report. It is used in the academic field and has also been used in some jurisdictions to inform regulatory decisions, but it is a very different approach to ratemaking than what is practiced in North America. For the reasons discussed below, I would not recommend that PURA devote additional regulatory resources to commissioning a frontier study for the purpose of establishing CL&P's X-Factor in this proceeding.

SFA is an econometric technique that estimates a best-practice production or cost frontier based on observed utility performance. It then evaluates individual utilities relative to that estimated frontier, using statistical assumptions intended to distinguish inefficiency from random variation.

Although SFA has been used in academic research and a limited number of regulatory settings, its application to ratemaking differs from the index-based approach commonly used to determine productivity factors in North American utility regulation. Under a frontier-based regulatory approach, estimated efficient costs or efficiency scores may be used to adjust a utility's allowed revenues or establish required efficiency improvements.[69]

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[68] Taylor, *Direct Testimony*, 39–40.

[69] Bundesnetzagentur, "Efficiency Benchmarking,", < https://www.bundesnetzagentur.de/EN/RulingChambers/Chamber8/RC8_05_Revenue%20caps_revenue%20regulation/54_Efficiency%20benchmarking/Efficiency%20benchmarking_.html>; Bundesnetzagentur, "The Main Tools of Incentive

These efficiency estimates represent model-derived benchmarks rather than the utility's actual recorded expenditures, although regulatory frameworks may use actual costs as the starting point for determining allowed revenues. By comparison, an index-based TFP study measures historical changes in industry inputs and outputs to inform the productivity adjustment applied under an indexed revenue adjustment mechanism.

I recognize that frontier analysis can provide interesting information about drivers of productivity change and hypothetical combinations of capital and OM&A deployment that may be identified as efficient by the model, but in practice it has been shown to be complex and difficult to decipher for some stakeholders (likened to a "black box"), overly sensitive to outliers, and potentially open to manipulation. For example, frontier estimates can be sensitive to the selection of utilities, explanatory variables, assumptions about the cost or production function, treatment of outliers, and underlying data quality.[70] Although SFA attempts to separate random fluctuations from actual inefficiencies, the reliability of its results depends on the statistical assumptions used in the model and the quality of the underlying data.[71]

Frontier-based regulation has been used in certain European jurisdictions. For example, Germany's federal energy regulator, the Bundesnetzagentur, uses both SFA and data envelopment analysis ("DEA") to assess the relative efficiency of electricity distribution network operators. These assessments are incorporated into the determination of revenue

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Regulation in Germany," < https://www.bundesnetzagentur.de/EN/Areas/Energy/GeneralInformationRegulation/IncentiveRegulation/Tools/start.html>

[70] Darryl Biggar, "The Role of Cost Benchmarking in Public Utility Regulation," Journal of Regulatory Economics 68 (2025): 231–63. <https://doi.org/10.1007/s11149-025-09493-w>

[71] Phill Wheat, Alexander D. Stead, and William H. Greene, "Robust Stochastic Frontier Analysis: A Student's t-Half Normal Model with Application to Highway Maintenance Costs in England," Journal of Productivity Analysis 51 (2019): 21–38. < https://doi.org/10.1007/s11123-018-0541-y>

caps, beginning with the utilities' assessed costs and applying efficiency adjustments.[72] However, Germany's experience illustrates the methodological challenges associated with frontier analysis, including the need to make statistical assumptions, account for differences in operating conditions among utilities, and identify unusual observations that may distort estimated efficiency. At a 2024 scientific dialogue hosted by the Bundesnetzagentur, research presented by Vaterlaus specifically identified difficulties detecting outliers using SFA when utilities have substantially different operating characteristics.[73] The presentation also identified the risk that small or unrepresentative samples could produce biased efficiency estimates and unattainable cost targets.

Finland previously used SFA together with DEA to establish efficiency improvement targets for electricity distribution utilities. Subsequent research found that different frontier methodologies could produce materially different regulatory cost targets, even when their estimated efficiency scores were highly correlated.[74] Following a methodological review, Finland replaced SFA and DEA with another frontier-based approach, StoNED, in 2012. However, concerns regarding the reliability and achievability of frontier-based efficiency targets persisted. In comments on the proposed 2024–2031 regulatory framework, an association representing urban energy utilities argued that changes to the StoNED model

[72] Bundesnetzagentur, "Efficiency Benchmarking," Ruling Chamber 8.

[73] Stephan Vaterlaus, *The Efficiency of Distribution Network Operators: Past and Future Challenges* (presentation, Bundesnetzagentur Scientific Dialogue on Efficiency Benchmarking, Bonn, September 24, 2024), slides 3–4, < https://www.bundesnetzagentur.de/EN/RulingChambers/GBK/Calendar/Sep2024/20240924_S1-3_Vaterlaus-Past_and_future_challenges.html?nn=694220>

[74] Timo Kuosmanen, Antti Saastamoinen, and Timo Sipiläinen, "What Is the Best Practice for Benchmark Regulation of Electricity Distribution? Comparison of DEA, SFA and StoNED Methods," Energy Policy 61 (2013): 740–50, <https://doi.org/10.1016/j.enpol.2013.05.091>

produced misleading efficiency estimates and excessively demanding efficiency requirements for certain distribution utilities.[75]

Austria's electricity regulator also evaluated SFA for determining utility-specific efficiency targets but concluded that the available sample was insufficient for reliable application of the methodology. Specifically, the commissioned experts concluded that the available sample of distribution utilities was too small to support reliable SFA estimation.[76]

LEI's index-based analysis directly addresses historical industry OM&A productivity growth, while its separate unit-cost and econometric benchmarking analyses evaluate CL&P's relative cost performance. Those analyses provide empirical evidence relevant to the proposed X-Factor and Consumer Dividend without requiring PURA to adopt a fundamentally different approach to determining the productivity adjustment. The index-based approach is an established and widely used methodology for measuring historical industry productivity trends in North American utility regulation. A study prepared by Pacific Northwest National Laboratory ("PNNL") for the U.S. Department of Energy describes index-number methods as a preferred approach for North American performance-based regulation, while discussing their data, transparency, and sensitivity-testing requirements.[77] The Alberta Utilities Regulator relied on an aggregate index-based approach in establishing the industry productivity factor for electricity distributors since

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[75] Association of Energy Cities, "Statement on the Consultation Regarding the Draft Regulatory Methodologies for Electricity Distribution Network Operations for the Regulatory Periods 2024–2027 and 2028–2031," November 10, 2023, section "Efficiency Incentive," <https://energiakaupungit.fi/energiakaupungit-ryn-lausunto-kuuleminen-vahvistuspaatosluonnoksesta-sahkon-jakeluverkkotoimintojen-valvontamenetelmiksi-valvontajaksoilla-2024-2027-ja-2028-2031/.>

[76] E-Control, *Regulatory Regime for the Third Regulatory Period: Electricity Distribution System Operators*, 1 January 2014–31 December 2018 (2014), 18–19, 55. <https://www.e-control.at/documents/1785851/1811582/Regulierungssystematik%2BStrom%2B3.%2BPeriode-engl_clean_en_14037_final.pdf/8bf86184-095a-4eb1-811d-b682d146f709.

[77] Brittany Tarufelli and Mark Weimar, *Total Factor Productivity Studies in the Electricity Sector: An Overview of Methodologies and Best Practices*, PNNL-33001 (Richland, WA: Pacific Northwest National Laboratory, June 2022).

2012 for its first-generation PBR framework; studies for electric utilities in New Hampshire, Hawaii, Massachusetts, and Ontario have also used index-based methodologies.[78]

As explained in my direct testimony[79], LEI selected the index method because the principal objective is to measure historical changes in productivity across the electric distribution industry. The method directly measures changes in industry output relative to real input quantities from reported cost and operating data, does not require specification of a particular production or cost function, and can be applied consistently across a broad industry sample.

Q. Dr. Taylor recommends additional sensitivities. Ms. Wilson and Mr. Tully also request additional sensitivity analyses and testing of alternative scenarios.[80] How should PURA evaluate these requests in relation to setting the Company's OM&A X-Factor?

A. Sensitivity analyses can provide useful information about the effects of alternative assumptions and the robustness of productivity estimates. Indeed, LEI's Industry TFP Study already examined alternative historical periods, a Northeast regional sample, electricity sales as an alternative output measure, and an alternative capital depreciation methodology. LEI also conducted additional analyses during discovery. However, I believe that the additional requests of the intervenors' witnesses are not necessary and, in some cases, are impossible or methodologically unsound.

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[78] Brittany Tarufelli and Mark Weimar, *Total Factor Productivity Studies in the Electricity Sector: An Overview of Methodologies and Best Practices*, PNNL-33001 (Richland, WA: Pacific Northwest National Laboratory, June 2022), ii; LEI, *Industry TFP Study*, Exhibit CLP-PBR-2, 18–21.

[79] Frayer, *Direct Testimony*, 25-27.

[80] Taylor, *Direct Testimony*, 13–15; Wilson and Tully, *Direct Testimony*, 39–41.

First, several of Dr. Taylor's proposed sensitivities, including gross or net plant, the capital benchmark year, and capital-cost smoothing, appear to relate to capital productivity. Changes to these assumptions would affect capital PFP or total TFP but would not affect OM&A PFP if the OM&A inputs, output measure, sample, and study period remain unchanged. Accordingly, these tests are not relevant to determining the Company's proposed OM&A-only X-Factor.

Second, LEI has already examined alternative assumptions that directly affect OM&A PFP. In response to UPA-049(b) and UPA-051, the Company reported average annual OM&A PFP estimates of approximately +0.20% using winsorization and +0.03% using GDP-PI instead of GDP-FSDP, respectively, compared with the originally filed estimate of −0.03%.[81] Although LEI performed these requested tests, I believe PURA should give limited weight to the alternative results for purposes of determining the X-Factor because neither alternative has been demonstrated to provide a more reliable or economically appropriate measure of long-term industry OM&A productivity. Winsorization replaces unusually high or low productivity observations with adjusted values, moving the analysis away from actual reported data and changing the result for the productivity trend without demonstrating that those high and low observations are erroneous or should be disregarded. In particular, the resulting modified growth series no longer preserves the cumulative productivity change reflected in LEI's original chained index.[82]

Similarly, GDP-PI[83] is less appropriate than GDP-FSDP for measuring non-labor input prices because GDP-FSDP better reflects prices paid by domestic purchasers, including the

[81] CL&P, responses to UPA-049(b) and UPA-051 (sensitivities using the originally filed dataset).

[82] See CL&P, response to UPA-049(b), Docket No. 26-05-10.

[83] The Company also conducted a test using GDP-PI to measure non-labor input prices as one of the scenarios in its response to UPA-082.

effects of changes in import prices. GDP-PI measures price changes in goods and services produced in the United States, including exports, but does not directly reflect changes in import prices. In contrast, GDP-FSDP measures prices of final goods and services purchased by U.S. residents, including imported goods and services, while excluding exports.[84]

For example, EDCs may incur maintenance expenses associated with repairing transformers, circuit breakers, and other distribution equipment using imported components. Changes in the prices of imported components can therefore affect utilities' operating costs, even though these import-price changes are not directly captured by GDP-PI. Conversely, GDP-PI incorporates price changes for domestically produced goods sold to foreign purchasers, such as U.S.-manufactured aircraft exported overseas, which have little direct relationship to the operating and maintenance costs of domestic EDCs. Because GDP-FSDP excludes exports, it does not directly incorporate those export-price changes.[85][86]

Third, Dr. Taylor recommends testing alternative expense classifications and aggregation weights but does not identify which labor or distribution expenses should be included or

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[84] U.S. Bureau of Economic Analysis ("BEA"), "Gross Domestic Product (GDP) Price Index," BEA Glossary, < https://www.bea.gov/help/glossary/gross-domestic-product-gdp-price-index>; BEA, "Final Sales to Domestic Purchasers," BEA Glossary, https://www.bea.gov/help/glossary/final-sales-domestic-purchasers; BEA, "BEA Provides Easier Access to Important Economic Measures," December 12, 2012,< https://www.bea.gov/news/blog/2012-12-12/bea-provides-easier-access-important-economic-measures.>

[85] BEA, "Gross Domestic Product (GDP) Price Index"; U.S. Census Bureau, U.S. International Trade in Goods and Services, December and Annual 2025, Exhibit 6, "U.S. Exports of Goods by End-Use Category and Commodity," <https://www.census.gov/foreign-trade/Press-Release/ft900/final_2025.pdf>

excluded, propose alternative OM&A weights, or demonstrate any deficiencies in LEI's existing methodology.[87] LEI's analysis relies on consistently defined FERC expense accounts, which utilities report in accordance with FERC's Uniform System of Accounts, prescribed under 18 CFR Part 101. Specifically, LEI obtains OM&A expenses from the Electric Operation and Maintenance Expenses schedule in FERC Form 1 and salaries and wages from the Distribution of Salaries and Wages schedule. LEI calculated utility-specific labor and non-labor cost shares derived from these reported data. Changing these classifications or weights without identifying a methodological deficiency or providing an economically justified alternative would introduce arbitrary adjustments that could undermine the reliability of the industry productivity estimates.

In my opinion, the intervenors' proposed additional sensitivities do not establish a deficiency in LEI's methodology or provide a more reliable alternative for determining the Company's OM&A X-Factor. PURA should therefore retain LEI's preferred methodology rather than adopt alternative specifications that are either irrelevant to OM&A productivity or lack sufficient economic and empirical justification.

Q. Dr. Taylor recommends using the 62nd percentile of capital productivity performance, rather than the industry average, in calculating capital PFP and total TFP, citing CL&P's favorable historical capital-cost benchmarking results.[88] Do your benchmarking results support his proposed adjustment to your TFP calculation?

A. No. Dr. Taylor is mixing apples and oranges when he recommends using CL&P's historical capital-cost benchmarking results to justify selecting a higher percentile of capital productivity growth in LEI's Industry TFP Study. LEI's Industry TFP Study and the Benchmarking Cost Study measure different aspects of utility performance (evaluating

[87] Taylor, *Direct Testimony*, 22, 36–37.

[88] Taylor, *Direct Testimony*, 36–38.

productivity trend over time versus estimating productivity level at a specific point in time), focus on different applications (industry level TFP versus firm-specific cost benchmarking), look over different time periods (20-year TFP versus 10-year Benchmarking) and were created for different purposes (setting the X-Factor versus informing the Consumer Dividend).

Cost benchmarking measures CL&P's costs relative to other utilities or a model-predicted benchmark, while capital PFP measures changes in output over time relative to real capital inputs. Therefore, CL&P's historically favorable capital-cost performance does not necessarily mean that it should be required to achieve capital productivity growth at the 62nd percentile of the industry. Indeed, if a utility has been found to be very efficient, logically there may not be as much low hanging fruit to take advantage of in order to accelerate its productivity growth over time.

Also, Dr. Taylor does not demonstrate how the reported capital-cost deviations translate into the proposed 62nd percentile of capital productivity growth or establish why that percentile would provide a more appropriate measure of industry productivity. Such an adjustment would require an empirically supported relationship between relative cost levels and productivity growth.

Finally, Dr. Taylor's recommendation concerns capital PFP and total TFP, which is irrelevant to the Company's proposed PBMRP, where the indexation applies only to OM&A. Accordingly, his proposed capital productivity adjustment would not directly affect the productivity measure underlying the Company's proposed X-Factor.

Q. As discussed in Section X, Dr. Taylor throws out a number of alternative X Factor values with the purpose of pushing for a higher X-Factor.[89] What is your reaction?

A. As I discussed earlier, there is no data-informed justification for his alternative proposals. I recommend retaining the empirically informed X-Factor (based on the OM&A PFP). Dr. Taylor may have overlooked that the Company is adding a Consumer Dividend, with a staring value of 0.30%, to the index-based revenue adjustment mechanism. So, in fact, there is a bit of a "stretch" built into the Company's PBMRP plan to address issues like sharing of benefits of PBR with consumers and improve affordability.[90]

Consistent with the approach contemplated in RE01 and deployed in other jurisdictions with active PBR in North America, the appropriate X-Factor should be informed by empirical productivity evidence and evaluated in the context of the costs covered by the revenue adjustment mechanism, the inflation index, and other PBMRP components, including the Consumer Dividend.

B. Historical Study Period and Treatment of Unusual Observations

Q. Ms. Wilson and Mr. Tully question whether the 2005–2024 study period adequately reflects industry productivity trends and suggest that using different periods could produce different results.[91] Why did LEI select the 2005–2024 period, and how do the productivity estimates change when alternative periods are used?

A. LEI selected the 2005–2024 study period to measure long-term industry productivity trends while reflecting relatively recent operating conditions, as described in Section 2.4 of Exhibit CLP-PBR-2. At the time of the study, 2024 was the latest year for which complete data were available. The selected period includes 20 years of data and 19 annual

[89] Wilson and Tully, *Direct Testimony*, 42–43; Taylor, *Direct Testimony*, 21–22.

[90] Donald J. Scacco Jr., Digaunto Chatterjee, and Douglas P. Horton, *Joint Direct Testimony*, 86–87.

[91] Wilson and Tully, *Direct Testimony*, 40–43.

productivity growth observations. A sufficiently long study period spreads the contribution of individual annual observations over more years and captures both favorable and unfavorable conditions, such as changes in weather, consumption, capital spending, and labor costs. At the same time, the period should not extend so far into the past that it captures industry conditions that may no longer be relevant. As discussed in the Company's response to OCC-445, selectively excluding particular observations could introduce bias if unusual periods are entirely excluded, even though they may reflect a reoccurring set of conditions. Excluding particular observations because of their value and impact on the average can be tantamount to cherry picking the data.

LEI also examined alternative historical periods. Based on the LEI Industry TFP Study results (with errata), average annual OM&A PFP growth was approximately −0.01% for 2005–2024, +0.32% for 2010–2024, and −0.31% for 2015–2024. These results demonstrate that productivity estimates vary depending on the study period, but shortening the period does not consistently produce a higher or lower estimate. Although Ms. Wilson and Mr. Tully question the appropriateness of the 2005–2024 study period, they do not identify a preferred alternative period or provide an empirical basis for concluding that another period would be more representative of long-term industry productivity trends. Accordingly, LEI considers the 2005–2024 period appropriate for measuring long-term industry productivity trends, rather than selecting a period based on whether it produces a positive or negative result.

Q. Ms. Wilson and Mr. Tully question whether historical productivity estimates provide an appropriate basis for the Company's X-Factor given prospective changes in load, electrification, investment requirements, and labor conditions.[92] Why is historical industry productivity an appropriate starting point for a prospective X-Factor?

A. Historical industry productivity provides an objective, empirical basis for establishing a prospective X-Factor because it reflects the industry's actual productivity performance under a range of economic and operating conditions. LEI's Industry TFP Study covers 2005–2024, a 20-year period during which electric distribution utilities experienced changes in electricity demand, labor costs, investment requirements, and operating practices, including increased spending on grid modernization, reliability, and resilience. By covering a sufficiently long period, the Industry TFP study captures both favorable and unfavorable conditions and reduces the influence of unusual circumstances in any individual year.

The changes identified by Ms. Wilson and Mr. Tully are therefore not entirely new to the industry. While these developments may affect electric distribution operations in the future, the magnitude and timing of their effects on industry OM&A productivity remain uncertain. Ms. Wilson and Mr. Tully have not demonstrated that these developments would materially change industry OM&A productivity during the proposed four-year PBMRP term or provided an alternative productivity estimate reflecting their expected effects.

Q. Ms. Wilson and Mr. Tully raise the absence of formal structural-break and outlier tests with respect to the Industry TFP Study.[93] Please comment on this concern.

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[92] Wilson and Tully, *Direct Testimony*, 42.

[93] Wilson and Tully, *Direct Testimony*, 40–43.

Annual productivity growth can fluctuate because of changes in economic conditions, operating expenditures, capital investment cycles, and other factors. Therefore, identifying an unusually large annual change, or differences in average productivity growth across selected historical periods, does not by itself demonstrate that the industry's longer-term productivity trend has permanently changed.

LEI employed an index-based approach to measuring industry productivity, a numerical technique which allowed for the calculation of changes in productivity using observed changes in industry outputs and inputs. Unlike an econometric regression model, an index-based TFP study does not rely on estimating statistical relationships or regression parameters. The TFP index links successive annual changes to measure cumulative productivity growth over the study period, with each observation contributing to the historical trend. Simply removing an observation because it exhibits an unusually large positive or negative change or shortening the historical period without a sound economic logic could introduce subjectivity into the analysis and potentially distort the resulting productivity trend.

LEI's approach is also consistent with other regulatory productivity studies that used continuous historical periods substantially overlapping LEI's 2005–2024 Industry TFP study period. For example, the NSTAR Electric study covered 2006–2020, the FortisBC industry O&M PFP study covered 2007–2022, and the PSNH study covered 2000–2022. Alberta's third-generation PBR proceeding also considered productivity studies extending through 2021. These examples demonstrate that the use of continuous, long-term historical periods is an established approach in regulatory productivity studies.

Therefore, I do not agree that the absence of formal structural-break or outlier tests undermines the validity of LEI's Industry TFP Study. The relevant consideration is whether

the historical period provides a reasonable and representative measure of industry productivity. Ms. Wilson and Mr. Tully do not provide economic justification for excluding particular observations or treating a selected period differently.

Q. Dr. Taylor identifies the 2019–2020 OM&A PFP observation as an outlier and calculates an alternative X-Factor of approximately 0.675% after excluding that year-over-year observation from LEI's original results.[94] Do you agree with his exclusion and resulting re-estimate of the OM&A PFP?

A. No, I do not agree with Dr. Taylor's approach of identifying an outlier and then excluding it from a long-term average or the value that he derived. LEI's originally filed Industry TFP Study reported a 12.72% decline in OM&A PFP in 2019–2020, followed by a 7.21% increase in 2020–2021. Dr. Taylor's approach removes the large negative observation while retaining the subsequent positive observation. His suggestion to exclude the 2019–2020 annual growth rate appears to have been made without adequately investigating the underlying expenditure drivers (despite having access to LEI's workpapers) or considering the methodological implications of selectively excluding an observation from a productivity series constructed using the chained Fisher Ideal methodology. Importantly, identifying an observation as a statistical outlier does not, in itself, provide an economic justification for excluding it from a long-term productivity trend. This is particularly relevant given that the underlying maintenance expenditures exhibit a persistent increase, rather than an isolated, short-term deviation, as I explain further below.

LEI's Industry TFP Study uses the chained Fisher Ideal methodology, under which annual changes in output and input quantities are calculated using data from consecutive years. These annual changes are linked by multiplying each year's growth factor by the preceding

[94] Taylor, *Direct Testimony*, 16–17, 21–22.

year's index value, producing separate output and input indices that capture cumulative changes over the full study period. The TFP index is then calculated as the ratio of the chained output index to the chained input index. Simply excluding the 2019–2020 growth rate would artificially improve measured industry productivity by disregarding a decline that remains embedded in subsequent years of the chained index. As demonstrated in Exhibit WOT-2, Dr. Taylor calculates his adjusted OM&A PFP estimate of 0.675% by excluding the 2019–2020 annual growth rate of −12.72% from LEI's published productivity series and taking the arithmetic average of the remaining observations, without reconstructing the underlying chained indices. However, both the 2019–2020 and 2020–2021 annual changes use 2020 data. [95] Removing the 2020 observation from the underlying dataset would require recalculating the adjacent index links. For illustrative purposes, excluding both annual growth rates from the arithmetic average produces an average annual OM&A PFP growth rate of 0.29% across the remaining 17 annual changes, rather than Dr. Taylor's proposed 0.675%. However, this calculation does not represent a valid measure of long-term productivity.

The industry TFP Study workpapers also provide important economic context for the 2019-2020 productivity decline. LEI analyzed the data underlying its TFP study and found that the industry sample experienced a significant increase in OM&A expenditures in 2020, with nominal costs rising 14.4%, equivalent to a 14.7% increase in real terms. A large share of the nominal increase was attributable to Pacific Gas & Electric ("PG&E"), Southern California Edison ("SCE"), and San Diego Gas & Electric ("SDG&E") (with additional substantial increases observed at Niagara Mohawk Power, Jersey Central Power & Light, PECO Energy, Commonwealth Edison, and Massachusetts Electric). For the California

[95] Dr. William O. Taylor, Exhibit WOT-2: Outlier Calculation Notebook, p. 1, "OM&A Productivity Outlier Analysis."

utilities, these increases coincided with fundamental changes in utility operating practices following destructive wildfires and heightened regulatory requirements for wildfire prevention. For example, in its 2020 Risk Spending Accountability Report, PG&E reported that operating expenses exceeded its authorized spending levels by approximately $1.33 billion, primarily because of enhanced equipment inspections and associated repairs, expanded vegetation management, and Public Safety Power Shutoff activities. [96] These expenditures reflect an operational response to heightened risks, rather than simply higher input prices or an unexplained increase in costs. PG&E's subsequent regulatory filings document the continuation of these activities through 2022 and describe ongoing inspection, maintenance, and vegetation-management programs for 2023–2025, suggesting that at least part of the expenditure increase reflected sustained operating requirements rather than exclusively temporary costs.[97]

While California utilities experienced the most pronounced initial increases, similar pressures are evident among utilities in other jurisdictions, reflecting both wildfire exposure and broader storm-related reliability and resilience requirements. These challenges have become a significant area of concern across the utility industry, as reflected in guidance published by the National Association of Regulatory Utility Commissioners ("NARUC") addressing resilience planning, wildfire risk mitigation, vegetation management, grid hardening, and the evaluation of associated utility expenditures.[98] [99] Portland General Electric attributed higher 2024 operating expenses partly to increased

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[96] CPUC. *PACIFIC GAS AND ELECTRIC COMPANY'S (U39M) 2020 RISK SPENDING ACCOUNTABILITY REPORT*. (2021). P. 1-4.

[97] CPUC. *2023 General Rate Case, Exhibit PG&E-4, Electric Distribution*. (2023). P. 2-24.

[98] NARUC. *Integrated System Resilience*. (2026).

[99] NARUC. *Wildfire Workbook for Utility Regulators*. (2026).

network maintenance, wildfire mitigation, vegetation management and storm restoration, and subsequently forecast $53–57 million of wildfire-related OM&A for 2025.[100] Central Maine Power explicitly confirmed that costs associated with major storms in 2023 were recorded in FERC Account 593, Maintenance of Overhead Lines.[101] The Michigan Public Service Commission reports that Consumers Energy increased the extent of its annual tree-trimming activities by approximately 50% over 2020–2024 relative to its earlier practices.[102] These examples are not intended to be exhaustive but do demonstrate how both reactive restoration and proactive maintenance programs can produce sustained expenditure pressures beyond California.

Climate change has also contributed to growing risks to electric distribution infrastructure, including more severe wildfire conditions in the western United States, as documented by National Oceanic and Atmospheric Administration ("NOAA").[103] However, as the U.S. Department of Energy recognizes, the need to strengthen grid resilience extends beyond wildfires to a broader range of extreme weather events.[104] In the Northeast, where utilities must contend with severe storms, including winter storms, this has placed greater emphasis on vegetation management, storm preparedness, and system hardening to reduce damage and improve reliability. This interpretation is consistent with independent industry and academic evidence. S&P Global Ratings identifies wildfire risk as an increasingly widespread concern affecting utilities beyond California, including in Texas and Colorado,

[100] Portland General Electric. *Portland General Electric announces 2024 financial results and initiates 2025 earnings guidance*. (2025).

[101] Central Maine Power. *2024 ISO New England Inc. Transmission, Markets and Services Tariff Docket No. ER20-2054*. (2024).

[102] MPSC. *MPSC's Focus on Reliability and Resilience*. (2026).

[103] NOAA. *The weather and climate influences on the January 2025 fires around Los Angeles*. (2025).

[104] DOE. *Building a Better Grid: Addressing Climate Change and Bolstering Electric Grid Security Through Planning & Innovation*. (2022).

and emphasizes the need for continuing mitigation expenditure.[105] S&P Global Ratings also highlights the broader financial and operational pressures associated with extreme weather events, including hurricanes, severe storms, and winter weather, which have contributed to increased utility expenditures on infrastructure repair, system hardening, and resilience measures.[106] Fitch Ratings similarly identifies increasing wildfire and hurricane activity as an ongoing utility-sector credit concern, contributing to rating actions in 2024.[107] Furthermore, Huang and Kahn (2024), using FERC Form 1 data, find statistically significant positive relationships between natural-disaster exposure, particularly hurricanes and fires, and utility maintenance expenditures.[108] Accordingly, while individual disasters can generate exceptional costs, the evidence indicates that they can also trigger lasting changes in utility operating and maintenance requirements. The resulting expenditures represent genuine and increasingly widespread industry cost pressures and should not be excluded from an industry productivity assessment merely because the initial increase was concentrated in a particular year or geographic region.

In summary, Dr. Taylor's analysis falls short on both the mechanics and rationale for why excluding the observation produces a more representative measure of long-term industry productivity.

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[105] S&P Global. *Credit FAQ: The Burning Questions: North America's Investor-Owned Utility Wildfire Risks*. (2025).

[106] S&P Global. *A Storm Is Brewing: Extreme Weather Events Pressure North American Utilities' Credit Quality*. (2023).

[107] EEI. *Q4 2024 Credit Ratings*. (2024). P. 7.

[108] Robert Huang and Matthew E. Kahn. *United States Electric Utility Adaptation to Natural Hazards and Green Power Mandates*. (2024). P. 277-278.

C. Choice of Output Measures

Q. Ms. Wilson and Mr. Tully question customer count as the output measure and recommend considering peak demand and multiple output metrics in the Industry TFP Study. [109] Dr. Taylor also probes whether customer count adequately reflects reliability and decarbonization responsibilities. [110] What are your thoughts on this subject matter?

A. The output index used to calculate the X-Factor must be consistent with the way the regulatory formula determines allowable revenue growth and customer count is the appropriate measure to use in the Industry TFP study. Customer count provides an objective and consistently available measure of the scale of electric distribution service that is a readily available data point across time and across firms. EDCs must connect customers and maintain the capacity to serve them regardless of their annual electricity consumption. As explained in my direct testimony, distribution service provides access to the network and the ability to receive electricity; annual energy deliveries do not fully capture that function.[111]

In contrast, electricity sales can fluctuate with weather, economic activity, energy efficiency, and customer usage without corresponding changes in the resources required to maintain distribution service.[112] In my professional judgement, customer count is therefore a more useful measure for measuring productivity trends for electric distribution sector, as well as comparing across utilities and years.

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[109] Wilson and Tully, *Direct Testimony*, 39–41

[110] Taylor, *Direct Testimony*, 15, 30–31, 41.

[111] Frayer, *Direct Testimony*, 34–36; LEI, *Industry TFP Study*, Exhibit CLP-PBR-2, 38.

[112] LEI nevertheless examined TFP trends for the industry with electricity sales as the defined output. The national OM&A PFP result is −0.97% using sales, compared with −0.01% using customer count (these are the results with the errata adjustments). Sales-based OM&A PFP is more negative because electricity sales have grown more slowly than customer counts, reflecting energy efficiency improvements, behind-the-meter generation, and greater sensitivity to weather and economic conditions. These factors reduce electricity consumption without necessarily reducing the costs of operating and maintaining the distribution network. See: EIA. *Electric Power Annual*. (2026).

I recognize that customer count may not capture all the nuances of reliability and quality of service or other distinct features of distribution service that some utilities may provide (for example, access to AMI information or ease of interconnecting a DER device); however, these attributes of service may be more interesting to examine for comparative purposes (between utilities) rather than on an aggregate industry basis. Nevertheless, data on some of these aspects of distribution service are not readily available on a consistent and comparable basis across utilities and over the full study period, limiting their suitability for inclusion in an industry-wide TFP study.

In relation to Ms. Wilson's and Mr. Tully's proposal to study peak demand as an output, LEI does not consider annual system peak demand an appropriate additional output measure for the TFP study.

First, as mentioned above, the selection of output measures in a TFP study should be consistent with the purpose of the study and the regulatory framework to which the resulting X-factor will be applied. The appropriate output measures may differ depending on whether the TFP study is intended to assess general productive efficiency or to calibrate an X-factor under a revenue-cap framework. Annual system peak demand also is not necessarily aligned with the billing determinants used in distribution rate design or the determination of allowable revenues under a revenue cap. In this case, the Company is proposing a revenue cap PBMRP and therefore, customer count is a more appropriate output measure.

Second, the available peak-demand data raise concerns regarding both data completeness and their ability to represent distribution system requirements. Although FERC Form 1 reports system-wide peak demand, complete historical data are not available for all 88 utilities included in LEI's Industry Study over the 20-year study period. Incorporating this

measure would therefore require additional data or methodological adjustments, potentially reducing the sample size and affecting the consistency and comparability of the analysis. In addition, system-wide peak demand does not necessarily reflect the localized loading conditions used to plan and design distribution facilities. Distribution capacity requirements are generally determined by peak loads at individual substations and feeders, which may differ from the overall system peak. Consequently, the available system-wide measure may not adequately represent the distribution-specific capacity requirements associated with the capital and operating inputs included in the TFP study.

Third, annual system peak demand is particularly sensitive to short-term fluctuations in weather and customer consumption patterns. While annual electricity sales are also influenced by weather, they measure the total volume of electricity delivered throughout the year, whereas annual peak demand reflects the maximum load recorded during a relatively short interval.[113] Accordingly, an unusually hot or cold period could materially affect annual system peak demand without a corresponding change in the overall volume of electricity delivered or the underlying distribution services provided. Including this measure could therefore introduce additional volatility into measured TFP growth that does not necessarily reflect changes in underlying productivity.

Customers, sales, and peak demand reflect different dimensions of service and are expressed in different units. Combining them requires both reliable, comparable data and a justified methodology for weighting their contributions; it is not simply a matter of adding another reported statistic. One established approach is to estimate an econometric cost

[113] FERC Form 1, page 401b, "Monthly Peaks and Output," Instruction 4, requires utilities to report their monthly maximum system load in megawatts based on a 60-minute integration period. Annual system peak demand can therefore be determined as the highest of the 12 reported monthly peaks.

function to determine how utility costs respond to changes in customer numbers, electricity deliveries, and peak demand. The resulting cost elasticities can then be used to establish the relative weights of these outputs in a combined output index. For example, the Ontario Energy Board's ("OEB") 2013 electricity distribution TFP study used cost elasticities estimated from an econometric cost model to weight these three outputs in a Törnqvist index.[114]

Additional outputs may provide useful information, but do not automatically produce a more appropriate productivity estimate. The data and weighting requirements must be satisfied before a combined measure can be evaluated against the customer-count base case and sales sensitivity.

[114] Lawrence Kaufmann et al., *Productivity and Benchmarking Research in Support of Incentive Rate Setting in Ontario: Final Report to the Ontario Energy Board* (Pacific Economics Group Research, November 2013), 38–41. < https://www.rds.oeb.ca/CMWebDrawer/Record/417632/File/document>

VI. Benchmarking and the Consumer Dividend

Q. Ms. Griffin cites LEI's benchmarking results showing that CL&P's OM&A costs were above the model-predicted benchmark and argues that these findings warrant a Consumer Dividend greater than the proposed 0.30%.[115] Do these results support her conclusion?

A. No. I do not agree with Ms. Griffin that LEI's econometric benchmarking results for the company warrant a higher initial consumer dividend level than what was proposed. LEI's benchmarking results indicate that CL&P has opportunities to improve its OM&A cost efficiency, which supports including a positive Consumer Dividend. However, Ms. Griffin incorrectly treats historical differences in cost levels as evidence that a higher annual Consumer Dividend is warranted. These differences do not establish how much of the above-benchmark costs can reasonably be eliminated or the annual rate at which such improvements can be achieved during the PBMRP.

LEI considered the Company's relative OM&A performance, relevant regulatory precedents, and the proposed adjustment mechanism in supporting an initial Consumer Dividend of 0.30%. The proposed mechanism also allows the Consumer Dividend to increase when CL&P achieves specified improvements in operating-cost performance. Although Ms. Griffin cites LEI's benchmarking results to argue for a higher Consumer Dividend, she provides no empirical analysis demonstrating that the proposed 0.30% is insufficient or establishing what higher percentage would be appropriate.

[115] Griffin, *Direct Testimony*, 69–70.

Q. Ms. Griffin observes that the proposed 0.30% Consumer Dividend falls in the lower half of the 0.15%–0.60% range of regulatory precedents.[116] She also recommends a benchmarking-based tiered approach as described in the RE01 Proposed Final Decision, under which less efficient utilities would receive larger Consumer Dividends. Do these considerations support a different Consumer Dividend for CL&P?

A. Not necessarily. LEI considered the regulatory precedents summarized in Figure 16 of the Cost Benchmarking Study as a reasonableness check.[117] The 0.15%–0.60% range is illustrative, rather than a prescribed regulatory range, and LEI did not select 0.30% based on its position within that range. The OM&A-focused precedents include FortisBC Inc.'s 0.25% stretch factor, which accompanies its 0.20% industry O&M PFP component, and the 0.40% Consumer Dividend approved for Massachusetts Electric and Nantucket Electric.[118] These percentages must be considered in the context of the costs covered and the other provisions of each regulatory framework.

For example, in D.P.U. 23-150, the Massachusetts Department of Public Utilities ("MA DPU") maintained National Grid's 0.40% Consumer Dividend rather than approving its proposed 0.30%, considering that utility's cost performance and the O&M-only revenue base. The MA DPU also established a 2% inflation threshold for applying the Consumer Dividend. This precedent illustrates the importance of considering the overall regulatory design and utility-specific circumstances rather than relying solely on the approved percentage.

[116] Griffin, *Direct Testimony*, 69–70.

[117] Exhibit CLP-PBR-3.

[118] Frayer, *Direct Testimony*, 47–48, 58–59.

Although Ms. Griffin recommends a tiered approach, she does not specify the proposed tiers, the percentages assigned to them, or the resulting Consumer Dividend for CL&P. These details would be necessary to evaluate such proposal. In the absence of a fully specified alternative, I am worried that the Consumer Dividend design will become ever more unbalanced, as subjective views substitute for empirical analysis and concrete findings.

Notably, the Company's proposed Consumer Dividend incorporates an asymmetric, performance-based ratcheting mechanism, under which the initial 0.30% Consumer Dividend, informed by LEI's benchmarking results, can increase by 0.10 percentage points when CL&P outperforms its inflation-adjusted operating-cost benchmark or decrease by only 0.05 percentage points when it does not, subject to a 0.30% floor.[119] Thus, the 0.30% is a starting point rather than a fixed amount, and the Consumer Dividend could increase to 0.60% by the fourth year with sustained outperformance, subject to the applicable inflation cap.[120] This design allows customers to share in additional efficiency improvements while limiting reductions in their benefits during periods of weaker performance.

I continue to believe that the initial 0.30% Consumer Dividend value, which was informed by LEI's benchmarking findings, relevant regulatory precedents, and the design of the overall PBMRP plan, is well-balanced between driving the utility with efficiency incentives, sharing the financial benefits of PBR with customers, and ensuring a reasonable opportunity for the utility to recover its costs.

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[119] Donald J. Scacco Jr., Digaunto Chatterjee, and Douglas P. Horton, *Joint Direct Testimony*, 94–96; CL&P, response to OCC-539(b)

[120] CL&P, response to OCC-443; CL&P, response to OCC-559.

Q. Ms. Griffin observes that subsequent increases in the Consumer Dividend depend on CL&P outperforming its own inflation-adjusted cost benchmark, rather than its peer benchmark.[121] Why does the proposed mechanism use a Company-specific benchmark for these adjustments?

A. Peer benchmarking and the Company's own cost benchmark serve different purposes. LEI's peer benchmarking results inform the initial Consumer Dividend starting point by providing evidence of CL&P's relative operating-cost performance. Subsequent adjustments during the PBMRP term depend on CL&P's actual Core Operating Expense per customer relative to a Company-specific benchmark, established using approved Core Operating Expense per customer and escalated under the applicable inflation-minus-productivity formula. Thus, peer benchmarking informs the initial dividend, while subsequent adjustments reflect CL&P's cost performance.

As discussed earlier, under the proposed mechanism, the Consumer Dividend starts at 0.30%. If CL&P's Core Operating Expense per customer falls below the Company-specific benchmark, the dividend increases by 0.10 percentage points in the following year. Otherwise, it decreases by 0.05 percentage points, subject to a floor of 0.30%.[122] With no more than three adjustments during the four-year term, the dividend could reach 0.60% by the fourth year. The amount applied is also subject to the applicable inflation-related provisions.[123]

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[121] Griffin, *Direct Testimony*, 69–70.

[122] Donald J. Scacco Jr., Digaunto Chatterjee, and Douglas P. Horton, *Joint Direct Testimony*, 94–96; CL&P response to OCC-539(b).

[123] Exhibit CLP-ELP-1, 93, 96.

This approach provides customers with an immediate initial financial benefit, while allowing the 'dividend' in subsequent years to increase when CL&P meets the specified cost-performance condition.

VII. Conclusions

Q. What do you recommend that PURA conclude from this rebuttal testimony?

A. I recommend that PURA approve the Company's updated proposed −0.01% OM&A PFP-based X-Factor and initial 0.30% Consumer Dividend, and F-Factor, while evaluating these elements in the context of the overall proposed PBMRP.

LEI's Industry TFP Study provides an empirical basis for the proposed OM&A X-Factor, which I recommend pairing with the OM&A input-price measure discussed in Section IV.B for the covered operating-expense allowance. As discussed in this rebuttal testimony, the intervenors' witnesses have raised questions and offered suggestions concerning the selection of the historical study period, treatment of unusual annual productivity observations, choice of output measures, and use of alternative productivity estimates. These considerations should be evaluated based on their underlying data, methodologies, and applicability to the proposed framework, rather than selected solely on the basis of their resulting X-Factor values.

Furthermore, a negative OM&A productivity estimate nor the presence of the F-Factor eliminate incentives for cost containment. Under the proposed indexed revenue cap for OM&A and cap on capital spending pursuant to the F-Factor, the Company's actual expenditures are not automatically passed through to customers, providing an incentive to the Company to manage costs and investments. The proposed Consumer Dividend provides an additional adjustment that reduces the growth of the covered operating expense allowance. I continue to support the initial 0.30% Consumer Dividend, taking into account LEI's benchmarking findings and the broader incentives and customer protections under the proposed PBMRP. While benchmarking provides important evidence of relative cost performance and opportunities for improvement, observed cost differences cannot be

directly converted into annual productivity or efficiency requirements without additional analysis.

With respect to capital recovery, the proposed F-Factor includes several provisions that also provide incentives for accurate forecasts of capital investment (the presence of the downward reconciliation) and protect consumers from paying for any expenditures above the approved forecast during the initial PBMRP term, subject to the proposed AMI provisions. Although these provisions operate differently from a comprehensive indexed revenue cap, they remain relevant considerations in assessing the overall allocation of risks and incentives under the proposed framework.

For the reasons explained in this testimony, I continue to support the updated −0.01% OM&A X-Factor, the initial 0.30% Consumer Dividend, and the economic structure of the Company's proposed PBMRP.

Q. Does this conclude your rebuttal testimony?

A. Yes.