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Witness: Julia Frayer
Request from: CLF and Acadia Center

Question:

(Productivity Factor) Refer to the U.S. Bureau of Labor Statistics' (BLS) Total Factor Productivity ("TFP") data for the utilities industry (available at https://www.bls.gov/productivity/tables/, "Total factor productivity by major industries"), and Exhibit CLP-PBR-2, Section 2.5 (productivity factor formula).

a) Please explain why the Study did not rely on the BLS TFP data for utilities as its primary data source or as a verification or validation source for the Study's results.

b) Applying the Section 2.5 formula to the BLS TFP data for utilities, confirm or refute that average productivity growth over the 2005-2024 period is approximately 0.457%. If the Company's calculation differs, please demonstrate how the calculation was completed and explain the discrepancy.

c) Discuss every difference between the "output" metric selected for the TFP analysis used in Exhibit CLP-PBR-2, (e.g., "number of customers"), and the output metric used by BLS.

d) State whether the Company has a fully replicable model (data plus formulas) underlying the Study's recommended productivity factor, sufficient for intervenors' experts to independently verify and stress-test the result. If yes, please include a copy of said model as part of the Company's response to this question. If such a model will not be produced and shared for analysis by other stakeholders, please explain why not.

Response:

a) The Study did not rely on the BLS ("U.S. Bureau of Labor Statistics") total factor productivity ("TFP") series for Utilities as its primary data source because the scope of the BLS measure is materially broader than the electric distribution industry examined in LEI's Study. BLS identifies the Utilities industry in its major-industry TFP statistics as NAICS 22.[1]

The BLS definition of NAICS 22 includes establishments providing electric power, natural gas, steam supply, water supply, and sewage removal, and the electric-power component itself includes generation, transmission, and distribution.[2]

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1 BLS. *Total Factor Productivity for Major Industries Release Technical Notes*. 2026.

2 BLS. *Utilities: NAICS 22*. 2026.

By comparison, electric power distribution is a narrow activity separately classified as NAICS 221122, covering establishments primarily engaged in operating electric distribution systems or arranging the sale of electricity over distribution systems.[3] To LEI's knowledge, BLS does not publish an RFP series for NAICS 221122.

Accordingly, the BLS Utilities TFP measure reflects productivity changes across activities outside the scope of the Study, including electric generation and transmission, natural gas distribution, and water and sewage services, which may have materially different technologies, cost structures, and productivity drivers.

Although the BLS series and LEI's Industry TFP Study both apply the general TFP concept of comparing output growth with growth in combined inputs, the measures are not directly comparable. LEI's Industry TFP Study uses number of customers as its primary output measure and capital and OM&A as its inputs, whereas BLS measures Utilities output using real sectoral output derived from the inflation-adjusted value of industry sales ($) and other output rather than a single physical measure such as MWh sold, and combines inputs of capital, labor, energy, materials, and services.[4]

In summary, the difference in the coverage of utility businesses and these differences in the definitions of output and inputs limit the usefulness of the BLS series as a validation benchmark of the results of LEI's Industry TFP Study.

b) Applying the formula shown in Figure 8 of Section 2.5 of LEI's Industry TFP report to the BLS TFP data, results in 0.457% average growth rate. However, for reasons discussed in subpart (a) above, this is not a comparable statistic that can be used to validate the TFP trends for the electric distribution sector. The BLS TFP index is for all types of utilities in the U.S. and is not specific to the electric distribution sector.

c) LEI's Industry TFP Study uses customer numbers as its output measure, which is a physical measure of the number of customers served by electric distribution companies. Each customer is therefore treated as a unit of output, irrespective of electricity consumption, revenues, or customer type. By contrast, BLS uses real sectoral output, which measures the goods and services produced by an industry for delivery outside that industry; sectoral output is based on gross output (including sales, receipts and other operating income in dollars), less transactions within the same industry. [5]

BLS therefore measures changes in the quantity and mix of goods and services produced, rather than changes in the number of customers served. Where multiple outputs are combined, BLS

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3 United States Census Bureau. *NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM*. 2022. P. 117.
4 BLS. *Total Factor Productivity for Major Industries Release Technical Notes*. 2026.
5 BLS. *Total Factor Productivity for Major Industries Release Technical Notes*. 2026.

uses a chained Törnqvist index that weights the component outputs according to their economic value shares.[6] BLS also notes that physical-quantity output measures are used for some industries within the utilities sector.[7] Thus, customer growth and BLS real output can move differently, for example, output per customer or the mix of utility services can change even when customer numbers remain unchanged.

d) Yes. The recommended productivity factor in LEI's Industry TFP Study was developed using a fully functional model utilizing underlying data, formulas and calculations necessary to reproduce the reported result. LEI will produce the confidential and proprietary model to CLF, subject to the execution of an appropriate confidentiality agreement with commercial terms.

6 BLS. *Industry Productivity Measures: Estimation*. 2026.

7 BLS. *Office of Productivity and Technology: Calculation*. 2026.