

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty

DG 21-008

Petition for Approval of a Firm Transportation Agreement
with Tennessee Gas Pipeline Company, LLC

Conservation Law Foundation Data Requests - Set 3

Date Request Received: 8/27/21
Request No. CLF 3-1

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

On Bates p. 15 of the DaFonte and Killeen rebuttal testimony, Messrs. DaFonte and Killeen assert that several issues raised by Dr. Hill are not relevant to the issues in this proceeding. Specifically, these include the effects of electrification, consideration of potential GHG emissions targets, and the risk of stranded costs associated with on-system enhancement projects.

- a. Does the Company acknowledge that electrification and meeting potential future GHG emissions reduction targets each can have material impacts on the Company's future planning forecast and sales?
- b. Has the Company conducted any analyses to estimate the potential impact on the Company's demand forecast or future sales from GHG emissions targets and/or electrification of building end uses. If so, please provide such analyses, including workpapers and with formulas intact.
- c. Please provide a justification for the claim that the consideration of these issues is not relevant to the current proceeding.

RESPONSE:

- a. Please see Bates 033, line 9 through Bates 034, line 20 of the DaFonte and Killeen rebuttal testimony. The Company complies with all current state regulations. The Company will continue to monitor new and potential changes to state regulations and will incorporate things such as electrification and potential GHG emissions targets into its planning if and as necessitated by those changes. To the extent new regulations are enacted, which impact the planning assumptions of the Company, the Company will consider the effect of those regulations in future demand forecasts submitted as part of the Company's integrated resource plan. The on-system enhancement projects will be considered by the Commission at the time the Company seeks approval of those projects in future proceedings and are not at issue in this proceeding.
- b. Please see the response to part a.
- c. Please see the response to part a.

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Date Request Received: 8/27/21
Request No. CLF 3-2

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 17, lines 3-6 of the DaFonte and Killeen rebuttal testimony.

- a. Please provide the details on how much the out of model adjustments related to promotional and sales activity in new and existing territories impact the results of the econometric modeling.
- b. Has the Company conducted any analyses on the extent to which the out of model adjustments related to promotional and sales activity in new and existing territories impact the results of the econometric modeling? If so, please provide such analyses, including workpapers and with formulas intact.
- c. Please explain at what point in time do decreasing customer additions equal those in the econometric forecast?
- d. Has the Company conducted an analysis of the resource deficiency under the assumption that there are not expanded sales and promotional efforts for both new and existing customer and service territories?
 - i. If so, please provide such analysis, including the workpapers with formulas intact.
 - ii. If not, please explain why such an analysis is not germane to the current proceeding.

RESPONSE:

- a. The out of model adjustments to the demand forecast do not affect the econometric model results. As explained on Bates 016, lines 17–18 of the DaFonte and Killeen rebuttal testimony, the Company “conducted a detailed statistical analysis based on historical data and applied an out-of-model adjustment to the resulting econometric forecast.” The out-of-model adjustment for the existing service territory was required because it represents information that was not embedded in the historical data underlying the econometric models. Stated differently, relying solely on the results from the econometric models would understate the demand forecast based on recent actual Company performance.

- b. Please see the response to part a.
- c. The out-of-model adjustment for the existing service territory is applied by customer segment. The customer additions associated with the existing service territory are equal to the customer additions forecast by the econometric models in 2031 for the residential heating segment, 2036 for the C&I heating segment, and 2026 for the C&I non-heating segment. There is no adjustment applied to the residential non-heating segment.
- d. The Company has not performed the requested analysis. Please see Bates 016, line 13 through Bates 017, line 2 of the DaFonte and Killeen rebuttal testimony.
 - i. Not applicable.
 - ii. Please see the responses to parts a. and c.

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Date Request Received: 8/27/21
Request No. CLF 3-3

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 18, lines 11-15 of the DaFonte and Killeen rebuttal testimony.

- a. Please provide a detailed description and explanation of the “certain changes to the application of the out-of-model adjustments to reflect changes in expectations,” which DaFonte and Killeen assert the Company has made to reflect changes in expectations.
- b. Did the Company conduct or consider using this type of out of model adjustment to account for expectations related to:
 - i. Potential GHG reduction targets; and/or
 - ii. The expectations for increasing electrification of building end uses.
- c. If yes, please provide these analyses; if not please explain why such changes in expectations for GHG emissions and/or increasing electrification should not also be considered when analyzing the need for a new supply contract.

RESPONSE:

- a. Please see Bates 018, lines 12–15 of the DaFonte and Killeen rebuttal testimony. See also, the DaFonte and Killeen Second Supplemental Direct Testimony in Docket No. DG 17-198.
- b. i. and ii. Please see Bates 032, lines 18 through Bates 033, line 7 of the DaFonte and Killeen rebuttal testimony.
- c. Please see the response to part b.

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Date Request Received: 8/27/21
Request No. CLF 3-4

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 18, lines 10-11 of the DaFonte and Killeen rebuttal testimony. Please explain where in Dr. Hill's testimony he suggests that Liberty has changed its underlying econometric models.

RESPONSE:

Dr. Hill states on page 7 of his direct testimony, "The Company's demand forecast is based on a July 2020 update to the econometric model used by the Company in Docket No. DG 17-198 in support of its 2017 LCIRP."

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Date Request Received: 8/27/21
Request No. CLF 3-5

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 20, lines 5-11, and Bates p. 11, lines 7-12 of the DaFonte and Killeen rebuttal testimony.

- a. Are data available, and does the Company have access to, average daily temperatures for a 30-year historical period?
- b. If the Company does have such data:
 - a. What is the most recent period for which such 30-year data are available?
 - b. Has the distribution of average daily temperatures been used in the Monte Carlo methodology to support the Company's design day estimates?
 - i. If not, why has the Company not done so, and can the distribution of average daily temperatures be incorporated into the Monte Carlo methodology for design day estimation?

RESPONSE:

- a. Yes.
- b.
 - a. The Company updates its weather database daily.
 - b. The Monte Carlo analysis is described in Appendix 4 of the Company's Least Cost Integrated Resource Plan in Docket No. DG 17-152.

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Date Request Received: 8/27/21
Request No. CLF 3-6

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 20, footnote 22 of the DaFonte and Killeen rebuttal testimony.

- a. Please describe the Company's method for distributing the Design Year HDDs through the year.
- b. How many standard deviations are applied when estimating design year and design day conditions?
- c. What is the resulting statistical level of confidence? For example, based on the model results, to what extent can the design year and design day conditions be expected to be warmer than the estimate with X% confidence?

RESPONSE:

- a. Please see pages 28 through 29 of the Company's Least Cost Integrated Resource Plan in Docket No. DG 17-152.
- b. Please see the response to part a.
- c. As noted in the Company's Least Cost Integrated Resource Plan in Docket No. DG 17-152, "The Company based its planning standards on its Monte Carlo analysis, using a Design Day and Design Year of the mean results plus two standard deviations." Two standard deviations equates to a 95% confidence interval.

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Date Request Received: 8/27/21
Request No. CLF 3-7

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 22, lines 4-13 of the DaFonte and Killeen rebuttal testimony.

- a. Please provide a reference to where in the 2021 Triennial Plan (or its attachments) are the method and results for estimating the design day impacts of the Triennial Plan. If these are not discussed in the Triennial Plan please provide the analyses and workpapers, with formulas intact, the Company has used to estimate the design day impacts of the Triennial Plan.
- b. What level of efficiency savings is assumed after the 2021 Triennial Plan period? In other words, are savings levels consistent with the 2021 Triennial Plan assumed to be continued after 2023 and, if so, would continued savings at that level have a “material effect” on the Company’s demand forecasts?
- c. What is the impact on the Company’s projected resource deficiency if a level of cost-effective efficiency savings consistent with the levels proposed in the 2021 Triennial plan were maintained through the Company’s forecast period in this docket (*e.g.* to 2038/39)?

RESPONSE:

- a. Please see Attachment CLF 3-7.xlsx. The effect of the 2021 Triennial Plan energy efficiency savings on the Design Day forecast was developed for the purposes of the DaFonte and Killeen rebuttal testimony.
- b. For the purposes of the referenced analysis, the percentage of energy efficiency savings associated with the 2023 estimate in the 2021 Triennial Plan were applied in each subsequent year of the forecast.
- c. Please see the response to part b.

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Conservation Law Foundation Data Requests - Set 3

Date Request Received: 8/27/21
Request No. CLF 3-8

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 27, lines 1-6 of the DaFonte and Killeen rebuttal testimony. Dr. Hill has acknowledged in his response to the Company's data requests that his assumption that the 20% average participant savings from the demand response pilots would require 100% participation to result in a 20% system demand savings. The Company asserts that such participation rates are not reasonable and that a 20% system reduction in demand is not reasonable.

- a. Has the Company conducted their own analysis of what levels of design day reductions are reasonable and achievable from demand response programs such that the Company could reduce or eliminate its forecast resource deficiency?
 - i. If yes, please provide summary results and the analyses and workpapers with formulas intact.
 - ii. If not, please explain why it is not appropriate to consider demand reduction options as alternatives to the proposed supply contract

RESPONSE:

- a. The Company has not performed the requested analysis. Please see Bates 028 through Bates 031 of the DaFonte and Killeen rebuttal testimony and the Company's response to CLF 1-7.
 - i. Not applicable.
 - ii. Please see the response to part a.

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Conservation Law Foundation Data Requests - Set 3

Date Request Received: 8/27/21
Request No. CLF 3-9

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 33, lines 18-21 of the DaFonte and Killeen rebuttal testimony.

- a. Is the Company aware of the rapid recent growth in the market for cold climate heat pump installations in Maine and Vermont?¹
- b. Does the rapid increase in cold climate heat pump installations in these neighboring states with similar climates present evidence that similar growth could be expected and/or feasible in New Hampshire?
- c. Given the growth in the market for cold climate heat pumps in Maine and Vermont, please explain why the Company takes the position that heat pumps are not a feasible solution for New Hampshire and please provide the Company's justification for questioning whether cold climate heat pumps are a feasible solution for New Hampshire?

RESPONSE:

- a. The Company is not aware of the factual basis for CLF's assertion or the assumptions underlying such assertion.
- b. The Company has not performed the requested analysis.
- c. The Company has not performed the requested analysis.

¹ See, e.g., *Maine Four-Year Plan for Climate Action*, *Maine Climate Council*, at 48 (December 2020), available at https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait_December2020.pdf.

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Conservation Law Foundation Data Requests - Set 3

Date Request Received: 8/27/21
Request No. CLF 3-10

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 34, lines 15-20 of the DaFonte and Killeen rebuttal testimony.

- a. Please explain why the fact that natural gas is currently the marginal fuel for ISO-NE is relevant to whether heat pumps are feasible for New Hampshire?
- b. Please explain why ISO-NE's generation mix is relevant to whether heat pumps are feasible for New Hampshire?
- c. While the Company claims that heat pumps require consumption of natural gas, has the Company examined ISO-NE's forecasts that show renewable energy comprising an increasingly large share of ISO-NE's generation mix in the coming decades? Is the Company aware that most generating facilities in ISO-NE's interconnection queue are renewable energy facilities?

RESPONSE:

- a. The reliance on natural gas for the generation of electricity in the ISO-NE region is provided for overall context regarding the role of natural gas for not only end-use applications but as a fuel for power generation. In addition, any increase in end-use electricity consumption will increase the need for natural gas, or on days with colder temperatures the need for oil and coal, to generate electricity to meet increasing demand for electricity.
- b. Please see the response to part a.
- c. The Company has not conducted the requested analysis.

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Date Request Received: 8/27/21
Request No. CLF 3-11

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 32, lines 18-20 of the DaFonte and Killeen rebuttal testimony. Given that the Company claims it cannot optimize the TGP capacity contract without the proposed on-system enhancements, please explain why the possibility of such investments becoming stranded is not relevant to the instant proceedings?

RESPONSE:

Please see Bates 035, line 11 through Bates 036, line 7 of the DaFonte and Killeen rebuttal testimony.

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Conservation Law Foundation Data Requests - Set 3

Date Request Received: 8/27/21
Request No. CLF 3-12

Date of Response: 9/9/21
Respondent: Francisco C. DaFonte
Deborah M. Gilbertson

REQUEST:

Referring to Bates p. 35 lines 4-9, of the DaFonte and Killeen rebuttal testimony.

- a. Is the Company aware that the GHG reduction targets suggested by Dr. Hill are consistent with those proposed at the Federal level and with those adopted by other New England States, including Maine, Vermont, Massachusetts, Rhode Island, and Connecticut?
- b. If these targets are consistent with what has been proposed at the Federal level and what has already been adopted in neighboring states, why is it not reasonable to consider them in the context of gas system planning and regulation in New Hampshire?
- c. Does the Company take the position that there is a negligible possibility of future GHG legislation or regulations either at the Federal level or in New Hampshire? To what extent does the Company view the possibility of future GHG legislation or regulations affecting New Hampshire as non-trivial? Has the Company conducted any analyses of the effect on Liberty's demand forecasts of such legislation or regulations?

RESPONSE:

- a. The Company is generally aware of GHG reduction targets in other New England states and at the Federal level.
- b. Please see the response to CLF 3-1.
- c. Please see the response to CLF 3-1.