

**STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION**

Docket No. DG 21-008

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

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

REBUTTAL TESTIMONY

OF

FRANCISCO C. DAFONTE

AND

WILLIAM R. KILLEEN

August 13, 2021



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1 **I. INTRODUCTION**

2 **Q. Please state your names, titles, and business addresses.**

3 A. (FD) My name is Francisco C. DaFonte. I am Vice President, Regulated Infrastructure
4 Development – Gas, of Liberty Utilities Service Corp., which provides services to Liberty
5 Utilities (EnergyNorth Natural Gas) Corp. (“Liberty” or the “Company”). My business
6 address is 15 Buttrick Road, Londonderry, New Hampshire.

7 (WK) My name is William R. (Bill) Killeen. I am Director, Energy Procurement of Liberty
8 Utilities (Canada) Corp., the indirect parent company of Liberty. My business address is
9 354 Davis Road, Oakville, Ontario, Canada.

10 **Q. On whose behalf are you submitting this rebuttal testimony?**

11 A. We are submitting this joint rebuttal testimony before the New Hampshire Public Utilities
12 Commission (the “Commission”) on behalf of Liberty.

13 **Q. Are you the same Francisco C. DaFonte and William R. (Bill) Killeen who filed direct**
14 **testimony in this proceeding?**

15 A. Yes. We filed joint direct testimony on January 20, 2021.

1 **II. PURPOSE AND OVERVIEW**

2 **Q. What is the purpose of your rebuttal testimony?**

3 A. The purpose of our rebuttal testimony is to respond to the direct testimonies and
4 recommendations of Mr. Stephen P. Frink on behalf of the Commission Staff (“Staff”)¹
5 and Dr. David G. Hill on behalf of the Conservation Law Foundation (“CLF”) as they relate
6 to the Firm Transportation Agreement (“FT-A”) between Liberty and Tennessee Gas
7 Pipeline Company, LLC (“TGP”) for 40,000 Dth per day of capacity from the Dracut,
8 Massachusetts, receipt point to the Londonderry, New Hampshire, delivery point, which
9 was executed on July 14, 2020 (the “TGP Contract”).

10 **Q. Please provide a summary of your rebuttal testimony in response to Mr. Frink on**
11 **behalf of Staff.**

12 A. Liberty agrees with Mr. Frink’s conclusion that the TGP Contract is reasonable and prudent
13 and should be approved by the Commission,² and with Mr. Frink’s observations in support
14 of his recommendation that: (1) Liberty has a need for additional supply resources to meet
15 projected demand requirements; (2) the flexibility in Liberty’s gas supply portfolio, with
16 the inclusion of the TGP Contract, allows the Company to adjust (i.e., terminate a
17 transportation contract) should actual demand be lower than forecasted; and (3) Liberty is
18 not seeking pre-approval of any on-system enhancements in this proceeding. The

¹ Effective July 1, 2021, a new governmental agency, the New Hampshire Department of Energy (“DOE”), was established separate from the Commission. As of that date, testimony filed by the former Commission Staff effectively became testimony of the DOE Staff. Further references to “Staff” in this testimony refer to the DOE Staff.

² The Office of the Consumer Advocate (“OCA”) did not file direct testimony in this proceeding; however, as part of the OCA’s initial position during the March 24, 2021, prehearing conference, the OCA stated that it was “...favorably inclined with respect to this particular approach to meeting the Company’s future supply needs. And, clearly, this Company does have some future supply needs that it needs to...meet.” March 24, 2021, Transcript, at 16.

1 Company responds to Mr. Frink's concerns regarding certain assumptions related to the
2 demand forecast and demonstrates that Mr. Frink's suggested changes would not have a
3 material impact on the Company's resource deficiency. Finally, the Company responds to
4 Mr. Frink's recommended conditions for approval of the TGP Contract and provides
5 clarification of the proposed reporting requirements for the Commission's consideration.

6 **Q. Please summarize your rebuttal testimony in response to Dr. Hill.**

7 A. As demonstrated in our direct testimony and as supported by the testimony of Mr. Frink,
8 the Company needs to obtain additional supply to avoid a resource deficiency. Certain
9 concerns and issues raised by Dr. Hill in his direct testimony have not changed this
10 conclusion, and the other concerns expressed by Dr. Hill are not germane to this
11 proceeding. As discussed in detail in Section IV, Dr. Hill's analyses and testimony are
12 largely speculative and unsupported. Liberty's decision to enter into the TGP Contract is
13 prudent, and supported by Staff and OCA, because the TGP Contract is the most cost-
14 effective means to alleviate the near-term resource deficiency and meet the demand
15 requirements of residential and commercial customers during winter weather conditions.

16 **III. RESPONSE TO STAFF WITNESS FRINK**

17 **Q. Please summarize the areas of agreement between Liberty and Mr. Frink.**

18 A. The Company agrees with Mr. Frink's recommendation that the Commission find the TGP
19 Contract to be reasonable and prudent. In addition, the Company agrees with Mr. Frink's
20 observations, which support his recommendation, that: (1) Liberty has a need for additional
21 supply resources to meet the projected demand requirements of customers; (2) the
22 flexibility in Liberty's gas supply portfolio, with the inclusion of the TGP Contract, allows

1 the Company to adjust (i.e., terminate a transportation contract) should actual demand be
2 lower than forecasted; and (3) Liberty is not seeking pre-approval of any on-system
3 enhancements in this proceeding.³

4 **Q. Although Mr. Frink agrees there is a need for additional capacity to meet projected**
5 **demand requirements, does he propose any recommendations with respect to the**
6 **Company’s demand forecast?**

7 A. Yes, he does. Specifically, Mr. Frink recommends that: (1) the out-of-model adjustment
8 for customer additions in the town of Windham should be removed from the demand
9 forecast; (2) the out-of-model adjustment for iNATGAS should be modified to reflect the
10 historical peak usage; (3) the demand forecast should reflect energy efficiency savings
11 from the 2021–2023 New Hampshire Statewide Energy Efficiency Plan (“2021 Triennial
12 Plan”); and (4) the Design Day planning standard should be based on the most recent 30
13 years of historical observations of heating degree days (“HDD”).⁴

14 **Q. Do you agree with Mr. Frink’s suggestion to remove the out-of-model adjustment for**
15 **customer additions in the town of Windham from the Company’s demand forecast?**

16 A. Yes, we do. Since the Company’s franchise rights to serve natural gas to the town of
17 Windham have expired,⁵ it is reasonable to update the demand forecast to exclude the out-
18 of-model adjustment reflecting additional customers in Windham. As shown in Table 1
19 below, in 2038/39, the value of the out-of-model adjustment for Windham is 2,232 Dth,
20 which is approximately 1% of the Design Day forecast of 222,210 Dth. Thus, removing

³ Direct Testimony of Stephen P. Frink, at 4, 6–7, and 12–13.

⁴ Direct Testimony of Stephen P. Frink, at 4–5.

⁵ See, New Hampshire Public Utilities Commission, Order No. 26,399 (Aug. 28, 2020).

1 the out-of-model adjustment for Windham would have a minor effect on the Company’s
 2 Design Day forecast. It is also important to note that excluding the out-of-model
 3 adjustment for Windham would not change the conclusion that the Company has a
 4 forecasted supply resource deficiency.⁶

5 **Table 1: Design Day Forecast (Dth)**

Split-Year (Nov-Oct)	Updated Base Case Design Day Demand	Out-of-Model Adjustment for Windham
2021/22	174,618	431
2022/23	183,409	538
2023/24	187,181	644
2024/25	190,657	751
2025/26	193,952	857
2026/27	196,975	964
2027/28	199,349	1,070
2028/29	202,008	1,176
2029/30	204,467	1,282
2030/31	206,942	1,388
2031/32	209,168	1,494
2032/33	211,373	1,600
2033/34	213,536	1,705
2034/35	215,447	1,811
2035/36	216,995	1,917
2036/37	218,679	2,022
2037/38	220,381	2,127
2038/39	222,210	2,232

6

⁶ As discussed in our direct testimony, the Design Day resource deficiency is 67,177 Dth in 2038/39. Removing the out-of-model adjustment for Windham would reduce the Design Day resource deficiency to approximately 64,945 Dth in 2038/39.

1 **Q. Please respond to Mr. Frink's suggested change to the out-of-model adjustment for**
2 **iNATGAS.**

3 A. Mr. Frink recommends Liberty update the demand forecast to reflect the historical peak
4 usage of iNATGAS, rather than the take-or-pay volumes outlined in the special contract
5 with iNATGAS, because he suggests there is little reason to assume iNATGAS usage will
6 increase above the historical peak usage.⁷ Mr. Frink's suggested change to the out-of-
7 model adjustment for iNATGAS would reduce the Design Day demand by 4,549 Dth,⁸
8 which is approximately 2% of the Design Day forecast of 219,978 Dth in 2038/39, which
9 also reflects the elimination of the out-of-model adjustment for Windham. While the
10 Company does not fully agree with Mr. Frink's suggestion as the volumes assumed by
11 Liberty in its demand forecast are supported by the special contract with iNATGAS,
12 updating the out-of-model adjustment for iNATGAS would have a relatively minor effect
13 on the Company's Design Day forecast and would not change the conclusion that the
14 Company has a forecasted supply resource deficiency.⁹

15 **Q. Do you agree that it is necessary to incorporate the proposed energy efficiency savings**
16 **from the 2021 Triennial Plan in the demand forecast in this proceeding?**

17 A. No, we do not. As discussed in more detail in response to Dr. Hill, there are certain
18 concerns with including the proposed energy efficiency savings from the 2021 Triennial

⁷ Direct Testimony of Stephen P. Frink, at 5-6.

⁸ Equal to the difference between the Company's out-of-model adjustment for iNATGAS of 8,800 Dth and Mr. Frink's suggested adjustment of 4,251 Dth (which is equal to the historical peak usage of iNATGAS).

⁹ As discussed in our direct testimony, the Design Day resource deficiency is 67,177 Dth in 2038/39. Modifying the out-of-model adjustment for iNATGAS as Mr. Frink suggests would reduce the Design Day resource deficiency to approximately 60,396 Dth in 2038/39, which also reflects the elimination of the out-of-model adjustment for Windham.

1 Plan in the Company's demand forecast in this proceeding. First, and most importantly,
2 the 2021 Triennial Plan has yet to be approved by the Commission. Further, as discussed
3 in Section IV below, even if approved and achieved, the additional energy efficiency
4 savings projected in the 2021 Triennial Plan do not significantly change the results of the
5 Company's Design Day forecast. As such, updating the demand forecast would not change
6 the conclusion that the Company has a forecasted supply resource deficiency.

7 **Q. What is your response to Mr. Frink's recommendation that the Company rely on the**
8 **most recent 30 years of historical HDD observations to estimate the Design Day**
9 **planning standard?**

10 A. The Company agrees to use the most recent 30 years of historical HDD observations as an
11 input to its Monte Carlo simulation analysis used to determine the Design Day planning
12 standard in the future.

13 **Q. Do you have any other observations related to Mr. Frink's recommendations**
14 **regarding the demand forecast?**

15 A. Yes. As Mr. Frink shows in Table 1 on page 6 of his direct testimony, even after including
16 all of his suggested adjustments to the demand forecast, the Company still has a resource
17 deficiency beginning in 2021/22 that increases in each subsequent year of the forecast
18 period. Stated differently, although we may not agree with each of Mr. Frink's suggested
19 adjustments, those adjustments do not change the overall conclusion that the Company has
20 a forecasted supply resource deficiency in the near term.

1 **Q. Please summarize Mr. Frink’s proposed conditions for approval of the TGP**
2 **Contract.**

3 A. Mr. Frink recommends the following five conditions for approval of the TGP Contract:

- 4 • Liberty supply surplus/(deficiency) analysis shall use a Design Day
5 standard based on the most recent 30-year weather data;
- 6 • No less than six months prior to a Company decision on whether to
7 exercise its right to extend any of the three Tennessee Gas Pipeline
8 contracts that originate from Dracut, Massachusetts, Liberty shall file
9 with Staff an updated supply deficiency analysis;
- 10 • The Company shall request Commission approval no later than 12
11 months prior to retiring any of the Company’s propane or LNG
12 facilities;
- 13 • Liberty shall file with Staff annual reports of customer complaints
14 received during the preceding winter related to the Company’s use of
15 propane; and
- 16 • Not less than 90 days prior to commencing construction of the
17 Budweiser Line, Liberty shall provide Staff with detailed engineering
18 and construction plans, most recent cost estimates, construction
19 schedules, and the expected increase in the Company’s ability to use the
20 Contract capacity expect upon completion.¹⁰

21 **Q. What is your response to Mr. Frink’s first proposed condition, which focuses on the**
22 **Design Day planning standard?**

23 A. As discussed above, the Company agrees to use the period recommended by Mr. Frink as
24 an input to the Company’s supply deficiency analysis in the future. Specifically, the
25 Company proposes to present its Design Day analysis, based on the most recent 30 years
26 of weather data, as part of its next least cost integrated resource plan (“LCIRP”) in 2022.

¹⁰ Direct Testimony of Stephen P. Frink, at 12.

1 **Q. What is your response to Mr. Frink's second proposed condition regarding the**
2 **decision to extend or not extend the Company's various contracts with TGP that**
3 **originate at the Dracut receipt point?**

4 A. Liberty generally does not take issue with the proposed condition. However, for
5 clarification purposes, the Company recommends the following additions noted in
6 underlined text:

- 7 • No less than six months prior to a Company decision on whether to
8 exercise its right to extend any of the three Tennessee Gas Pipeline
9 contracts that originate from Dracut, Massachusetts (which include the
10 Transportation Contract at issue in this docket and two other contracts
11 with TGP¹¹), Liberty shall file with Staff an updated supply deficiency
12 analysis.

13 **Q. What is your response to Mr. Frink's third proposed condition regarding the**
14 **retirement of the Company's propane or LNG facilities?**

15 A. Liberty agrees to request Commission approval no later than 12 months prior to retiring
16 any of the Company's propane or LNG facilities. In addition, Liberty proposes to submit
17 to Staff any assessments or studies conducted of such facilities, including the assessment
18 of potential impacts on Company operations, maintenance, and emergency use with respect
19 to periods of restrictions or interruption of traditional interstate pipelines, as well as with
20 respect to periods of high demands and potential impacts on supply costs. Furthermore,
21 the Company proposes that any future updates to such assessments will be provided to

¹¹ TGP Contract numbers 42076 and 72694 provide for capacity of up to 20,000 Dth/day and 30,000 Dth/day, respectively, from Dracut, Massachusetts, located in Zone 6 to the Company's city-gates, with expiration dates of October 31, 2025, and October 31, 2029, respectively.

1 Staff within 6 months prior to any Company request for approval of the retirement of any
2 propane or LNG facilities, and will be included in future LCIRP filings.

3 **Q. What is your response to Mr. Frink's fourth proposed condition that the Company**
4 **file with Staff annual reports of customer complaints received during the preceding**
5 **winter related to the Company's use of propane?**

6 A. Liberty generally does not take issue with this proposed condition. However, the Company
7 requests certain clarification. Specifically, Liberty proposes to provide the following
8 information in the requested report, based on information from the preceding winter:

- 9 a. The name of the customer making the complaint, and the address or
10 location of the customer's end use appliances and, if available, a list of
11 all appliances affected including make, model, and approximate age;
- 12 b. The date and time of the complaint and when the Company became
13 aware of the complaint;
- 14 c. The nature of the complaint;
- 15 d. The approximate distance between the relevant propane plant and the
16 customer's location;
- 17 e. The most current version of the following information: plant output by
18 temperature, representative maps of computer models indicating where
19 propane-air travels in the distribution system;
- 20 f. The most current version of the models that show proposed gas quality
21 for different mixes of propane-air blended with pipeline gas at the
22 Liberty plant outlet as it goes into the distribution system;
- 23 g. Once the Company implements proposed upgrades to the plant control
24 systems, the Company will provide historical data for actual blend ratio,
25 Wobbe and gas density to the SCADA system;
- 26 h. The details of the Company's propane injection (time, duration;
27 quantity, BTU measurements); and

- 1 i. A description of the Company's actions to investigate and resolve the
2 complaint.

3 Note that the "use of propane" described above does not include the use of propane in the
4 Company's Keene Division, as the Keene Division is entirely separate from the natural gas
5 distribution system that serves the vast majority of Liberty's customers.

6 **Q. What is your response to Mr. Frink's fifth proposed condition that the Company**
7 **provide certain information related to the Budweiser Line?**

8 A. As noted by Mr. Frink, Liberty is not seeking pre-approval of any on-system enhancements
9 in this proceeding. However, Liberty agrees to provide Staff with detailed engineering and
10 construction plans, and the Company's most recent cost estimates for the Budweiser Line
11 project no less than 90 days prior to commencing construction of the Budweiser Line.

12 **IV. RESPONSE TO CLF WITNESS HILL**

13 **Q. Please summarize the concerns raised by Dr. Hill in his direct testimony.**

14 A. Dr. Hill raises concerns regarding the development of the Company's demand forecast,
15 particularly related to the out-of-model adjustment for the existing service territory and the
16 derivation of the Design Day planning standard. In addition, Dr. Hill asserts that the
17 Company did not adequately consider the impacts of energy efficiency and demand
18 response programs on the demand forecast. Finally, Dr. Hill discusses several other issues
19 that are not relevant to the issues in this proceeding, including the effects of electrification,
20 consideration of potential greenhouse gas emissions targets, and his perceived risk of
21 stranded costs associated with the on-system enhancement projects.

1 **A. Demand Forecast**

2 **Q. What are the issues raised by Dr. Hill with respect to the development of the**
3 **Company’s demand forecast?**

4 A. Dr. Hill states that the out-of-model adjustment associated with the Company’s existing
5 service territory, and the resulting demand forecast growth rates, are not appropriate and
6 are in the Company’s best interest and not the customers’ interests.¹² Dr. Hill also suggests
7 that Liberty should review “the historic 30-year observed minimum average temperatures”
8 and compare that to its Design Day planning standard as a sensitivity analysis.¹³ Finally,
9 Dr. Hill states that it may be prudent to rely on the “the historic 30-year observed minimum
10 average temperatures” instead of the Company’s current Monte Carlo simulation
11 analysis.¹⁴

12 **Q. What is your response to Dr. Hill’s characterization of the out-of-model adjustment**
13 **associated with the existing service territory?**

14 A. Dr. Hill mischaracterizes the purpose of the out-of-model adjustment for the existing
15 service territory. Contrary to Dr. Hill’s testimony, Liberty has not simply applied internal
16 sales and marketing targets in place of a more detailed statistical analysis of forecast
17 demand. The Company conducted a detailed statistical analysis based on historical data
18 and applied an out-of-model adjustment to the resulting econometric forecast. The out-of-
19 model adjustment to reflect higher levels of customer additions was necessary because it

¹² Direct Testimony of Dr. David G. Hill, at 8.

¹³ Direct Testimony of Dr. David G. Hill, at 15.

¹⁴ Direct Testimony of Dr. David G. Hill, at 15.

1 represents information that was not embedded in the historical data and, therefore, not
2 captured in the model.

3 Dr. Hill also fails to note that the out-of-model adjustment for the existing service territory
4 is not applied in perpetuity. Customer additions for each customer segment in the existing
5 service territory were assumed to decrease over time starting in 2022 until they were equal
6 to the econometric forecast.

7 Furthermore, as shown in Table 1 on page 12 of our direct testimony and updated in the
8 Company's response to PLAN 1-7, the demand forecast (which includes the out-of-model
9 adjustment for the existing service territory) has been somewhat below normalized actual
10 demand (except for split-year 2019/20, which included the effects of the COVID-19
11 pandemic). That is, since 2017/18 (the first year of the forecast), the demand forecast has
12 not been out of line with actual demand as Dr. Hill suggests.

13 **Q. Do you have any other concerns with Dr. Hill's testimony as it relates to the out-of-**
14 **model adjustment in the demand forecast?**

15 A. Yes, we do. Dr. Hill states, "The Company's demand forecast is based on a July 2020
16 update to the econometric model used by the Company in Docket No. DG 17-198 in
17 support of its 2017 LCIRP."¹⁵ Dr. Hill's statement is incorrect for multiple reasons. First,
18 Docket No. DG 17-198 is not the docket related to the Company's 2017 LCIRP, rather it
19 was for the approval of the proposed Granite Bridge Project and other supply or capacity
20 contracts. Liberty's 2017 LCIRP was filed in Docket No. DG 17-152. That is an important

¹⁵ Direct Testimony of Dr. David G. Hill, at 7.

1 distinction, because the LCIRP represents a five-year forecast period, while the forecast
2 period in Docket No. DG 17-198 and in this docket extends to the 2038/39 split-year.
3 Given that background, Dr. Hill’s reference to the five-year compound annual growth
4 (“CAGR”) rates of 2.7% in the initial filing of the 2017 LCIRP¹⁶ have no bearing on the
5 demand forecast in this proceeding and are, thus, simply misleading. As noted on page 11
6 of our direct testimony, annual demand over the 2021/22 to 2038/39 period is forecast to
7 increase at a CAGR of 1.6%, while Design Day demand is forecast to increase at a CAGR
8 of 1.4%, which is significantly below the annual historical growth rate of 2.4% over the
9 2011/12 through 2019/20 split-years.

10 In addition, Liberty has not changed the underlying econometric models as Dr. Hill appears
11 to suggest. Rather, the Company has made certain changes to the application of the out-
12 of-model adjustments to reflect changes in expectations. For example, the most recent
13 adjustment to the demand forecast reflected the withdrawal of the Granite Bridge Project
14 by eliminating projected demand associated with new service areas that were to be served
15 by the Granite Bridge Project.¹⁷

16 **Q. Are the growth rates cited by Dr. Hill from the 2016 ICF demand forecasting study¹⁸**
17 **reasonable benchmarks for Liberty?**

18 A. No, they are not. First and foremost, as Dr. Hill even notes, the “study is now five years
19 old”¹⁹ and, thus, should not be considered a reasonable benchmark for current and future

¹⁶ Direct Testimony of Dr. David G. Hill, at 7-8.

¹⁷ Direct Testimony of Francisco C. DaFonte and William R. Killeen, at 11–12.

¹⁸ Direct Testimony of Dr. David G. Hill, at 8, footnote 11.

¹⁹ Direct Testimony of Dr. David G. Hill, at 8, footnote 11.

1 natural gas demand trends. While Dr. Hill suggests that regional trends and electrification
2 are likely to drive down estimated growth rates the Company's demand, as noted above,
3 has consistently grown since 2016, with the exception of 2019/20 (which included effects
4 of the COVID-19 pandemic for part of the period).

5 In addition, although Dr. Hill specifically points to a CAGR of 0.9% over the period from
6 2015 to 2030 for Northern Utilities from the ICF demand forecasting study as a reasonable
7 growth rate,²⁰ he fails to consider that, in that same study, ICF estimated a growth rate of
8 2.1% on an annual basis and 1.2% on a Design Day basis for Liberty. As noted above,
9 Liberty's current forecast produces CAGRs of 1.6% and 1.4% on an annual and Design
10 Day basis, respectively. Furthermore, the Company's forecast produces CAGRs that are
11 also consistent with the average growth rates in the ICF demand forecasting study of
12 approximately 1.9% on an annual basis and approximately 1.3% on a Design Day basis
13 over the period 2015 through 2030 for natural gas utilities in the New England region,
14 which Dr. Hill also fails to acknowledge. As such, although the ICF demand forecasting
15 study is based on stale data and assumptions and should not be relied on as a benchmark,
16 if we were to assume it was appropriate to rely on it, as Dr. Hill does, the growth rates in
17 the Company's demand forecast align with the growth rates presented in the study.

18 Lastly, Dr. Hill has compared the growth rate of a five-year forecast starting in 2017/18,
19 which represents a previous iteration of Liberty's demand forecast from a different docket,

²⁰ Direct Testimony of Dr. David G. Hill, at 8.

1 to a 15-year growth rate estimate covering the period 2015 through 2030 from a
2 benchmarking study published five years ago. There is simply no value in that comparison.

3 **Q. What is your response to Dr. Hill’s suggested change to Liberty’s derivation of the**
4 **Design Day planning standard?**

5 A. Dr. Hill’s proposal is unclear and can be interpreted in multiple ways. For example, Dr.
6 Hill recommends that Liberty review “a design day based on historic 30-year observed
7 minimum average temperatures.”²¹ That statement could be interpreted to mean the coldest
8 hourly temperature within the last 30 years (i.e., the minimum temperature) or some
9 average of observed minimum temperatures. Alternatively, it could be interpreted as the
10 coldest daily temperature or an average of some group of the coldest observed daily
11 temperatures.

12 Dr. Hill also does not provide any support for why the coldest historical observation should
13 be relied on instead of the Commission-approved Monte Carlo methodology²² (or a
14 different methodology). He simply states that a more recent historical dataset should be
15 considered “[g]iven observed and expected trends in warming average and extreme
16 temperatures in the Northeast.”²³ Dr. Hill has not conducted any analysis nor provided any

²¹ Direct Testimony of Dr. David G. Hill, at 15.

²² In Order No 24,941 (Feb. 13, 2009) in the Company’s 2006 Integrated Resource Plan docket (DG 06-105) the Commission concluded “that it is preferable that the Company base its design day and design year standards on a statistical analysis of the Monte Carlo based probability distribution.” Dr. Hill has not stated why the Company should change its Design Day methodology from the Commission approved approach. In addition, Messrs. John Antonuk and John Adger of The Liberty Consulting Group on behalf of Staff noted in their direct testimony in the 2017 LCIRP proceeding (DG17-152), “Use of Monte Carlo simulation to select these parameters [the Design Day and Design Year planning standards] is now industry best practice. Companies’ methods for distributing the Design Year HDDs through the year can vary somewhat, but we found the EnergyNorth methods appropriate.” Clarification added.

²³ Direct Testimony of Dr. David G. Hill, at 15.

1 research supporting his position that “observed minimum average temperatures” provide a
2 better estimate of Design Day weather. Lastly, given the significant importance of the
3 Design Day planning standard (i.e., a fundamental and foundational assumption used by
4 the Company to develop a resource portfolio to provide reliable service for its residential
5 and commercial customers during extreme weather conditions), any suggested change to
6 that planning standard requires robust analysis and documentation, which is lacking in Dr.
7 Hill’s testimony and, therefore, his recommendation should be afforded no weight by the
8 Commission.

9 **B. Energy Efficiency and Demand Response**

10 **Q. Please summarize Dr. Hill’s direct testimony as it relates to Liberty’s application of**
11 **energy efficiency in the demand forecast.**

12 A. Dr. Hill states that assuming increased levels of energy efficiency savings in the demand
13 forecast “at or above the levels proposed in the Triennial Plan would reduce the need for
14 the proposed TGP contract.”²⁴

15 **Q. What is your response to Dr. Hill?**

16 A. Conceptually, assuming higher levels of energy efficiency savings would lower the
17 demand forecast. However, the relevant factors are whether those levels of energy
18 efficiency are achievable and whether they have a material effect on the demand forecast.
19 The energy efficiency savings in the Company’s demand forecast are consistent with those
20 approved in the 2015–2017 New Hampshire Statewide Energy Efficiency Plan (“2015

²⁴ Direct Testimony of Dr. David G. Hill, at 6.

1 Triennial Plan”) and the 2018–2020 New Hampshire Statewide Energy Efficiency Plan
2 (“2018 Triennial Plan”).²⁵ The 2021 Triennial Plan is still under review and has yet to be
3 approved by the Commission.

4 As to whether the expanded energy efficiency savings presented in the 2021 Triennial Plan
5 would have a material effect on the demand forecast, a comparison of the 2021 Triennial
6 Plan to the 2018 Triennial Plan yields incremental savings on Design Day in 2021/22 of
7 132 Dth, increasing to 605 Dth in 2038/39. To put that difference in context, in 2038/39
8 the forecasted increased savings in energy efficiency would equal 0.3% of the 222,210 Dth
9 Design Day forecast. Stated differently, the Design Day forecast in 2038/39 using the
10 approved 2018 Triennial Plan is 222,210 Dth, while the forecast using the proposed 2021
11 Triennial Plan is 221,605 Dth, which, given the immaterial nature of the difference, does
12 not change the Company’s conclusion that it has a resource deficiency nor the level of that
13 resource deficiency.

14 **Q. Do you have any concerns with the energy efficiency savings data presented by Dr.**
15 **Hill?**

16 **A.** Yes. The energy efficiency savings presented by Dr. Hill do not represent the most recent
17 estimates from Liberty. Dr. Hill notes, in response to Liberty Data Request 1-3, that he
18 relied on the energy efficiency savings presented in the September 2020 filed version of
19 the Company’s 2021 Triennial Plan. However, the 2021 Triennial Plan was updated in

²⁵ The order approving the 2018 Triennial Plan was issued on January 2, 2018. *See*, New Hampshire Public Utilities Commission, 2018–2020 New Hampshire Statewide Energy Efficiency Plan, Order Approving Settlement Agreement, Docket No. DE 17-136, January 2, 2018.

1 December 2020 with generally lower energy efficiency savings than what Dr. Hill has
2 presented. Those revised savings goals were provided in Attachment A to the Settlement
3 Agreement for the 2021 Triennial Plan, which was signed by CLF and Clean Energy New
4 Hampshire.²⁶

5 In addition, the chart on page 11 of Dr. Hill's direct testimony is labeled as showing the
6 energy efficiency savings for 2020 through 2022. For the energy efficiency savings in the
7 current demand forecast, those are the years he has provided. However, the 2021 Triennial
8 Plan includes the years 2021 through 2023. That is, Dr. Hill has compared energy
9 efficiency savings for the years 2020 through 2022 in the Company's current demand
10 forecast to savings in the 2021 Triennial Plan for the years 2021 through 2023.

11 Finally, Dr. Hill's comparison in the chart presented on page 11 of his direct testimony is
12 not appropriate. Dr. Hill compares the percentages of energy efficiency savings in the
13 demand forecast (which he labels as "CLF 1-2"²⁷) to the percentages of energy efficiency
14 savings in the 2021 Triennial Plan. However, those two figures are calculated differently,
15 and, as a result, are not comparable. The 0.82% energy efficiency savings in the
16 Company's current demand forecast represent the savings as applied to the forecast for
17 each year. The percentages in the 2021 Triennial Plan are calculated relative to historical

²⁶ Notably, Dr. Hill provided testimony on behalf of Clean Energy New Hampshire in support of the settlement. New Hampshire Public Utilities Commission, 2021–2023 New Hampshire Statewide Energy Efficiency Plan, Settlement Agreement, Docket No. DE 20-092, December 3, 2020, Attachment A. Additional detail was provided in the updated attachments to the September 1, 2020, plan, revised December 2, 2020. *See also*, Rebuttal Testimony of David G. Hill, Ph.D., New Hampshire Public Utilities Commission, 2021–2023 New Hampshire Statewide Energy Efficiency Plan, Docket No. DE 20-092, December 3, 2020.

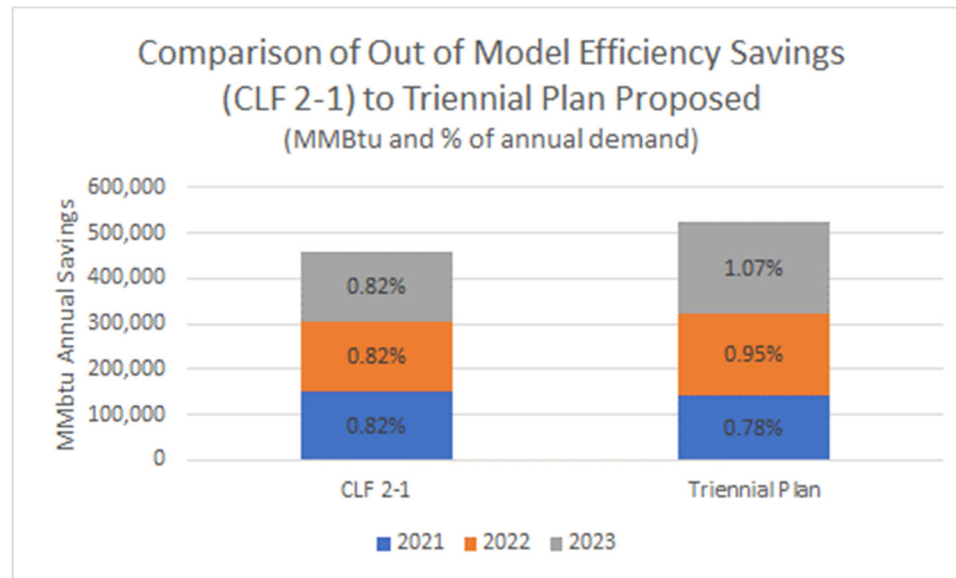
²⁷ Although Dr. Hill refers to the Company's response to CLF 1-2, the energy efficiency savings were provided in Attachment CLF 2-1.xlsx.

1 demand using a 2019 base year. Stated differently, the percentage of energy efficiency
2 savings in Company's demand forecast is equal to the energy efficiency savings in each
3 year divided by the demand in that same year. The 2021 Triennial Plan calculates the
4 percentage of energy efficiency savings as the energy efficiency savings in each year, 2021
5 through 2023, divided by demand in 2019.

6 **Q. Have you corrected Dr. Hill's assessment of the energy efficiency savings forecasts?**

7 A. Yes. Chart 1 below corrects the chart on page 11 of Dr. Hill's direct testimony.
8 Specifically, Chart 1 compares the 2021 through 2023 energy efficiency savings in the
9 current demand forecast and in the 2021 Triennial Plan. The percentages represent the
10 energy efficiency savings in each individual year as a percentage of the total demand
11 forecast prior to energy efficiency savings.

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Chart 1: Energy Efficiency Comparison Corrected

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As shown on Chart 1, although the energy efficiency savings in the 2021 Triennial Plan are higher than the savings in the Company's current demand forecast, the difference is not as large as suggested by Dr. Hill. That finding supports the conclusion noted above that, even if the demand forecast was updated to reflect the 2021 Triennial Plan, it would not have a material effect on the overall conclusion that the Company has a near-term resource deficiency during the forecast period and the TGP Contract is needed to meet the needs of customers.

10

Q. Has Dr. Hill correctly characterized the Company's application of energy efficiency savings in the demand forecast?

11

12

A. No, he has not. Dr. Hill states "the Company makes an out-of-model adjustment to the demand forecast based on historic 2017 to 2020 energy efficiency efforts, and an

13

1 assumption that future efficiency savings would continue at 2020 levels.”²⁸ That statement
2 is incorrect. Liberty relied on the energy efficiency goals in the 2015 Triennial Plan and
3 2018 Triennial Plan for the period 2017 through 2020. After 2020, the energy efficiency
4 savings in each year was assumed to be equal to the percentage of savings relative to
5 residential and C&I firm demand in 2020. That is, the energy efficiency savings were
6 based on the forecast energy efficiency savings goals at the time the demand forecast was
7 developed and not historical experienced energy efficiency savings as Dr. Hill suggests.

8 **Q. Please summarize Dr. Hill’s testimony as it relates to the potential effect of demand**
9 **response programs on the Company’s demand forecast.**

10 A. Dr. Hill cites a whitepaper he co-authored in early 2020, which estimated an average
11 demand reduction of 20% on high usage days within a five-year horizon.²⁹ Dr. Hill then
12 assumes a 20% reduction to the Company’s Design Day forecast of 193,952 Dth in
13 2025/26, resulting in a Design Day demand estimate of 155,161 Dth.³⁰ Based on that
14 assumption, Dr. Hill suggests that such a decrease would come “very close to eliminating
15 the forecast deficiency” and should be investigated further.³¹

²⁸ Direct Testimony of Dr. David G. Hill, at 6.
²⁹ Direct Testimony of Dr. David G. Hill, at 13.
³⁰ Direct Testimony of Dr. David G. Hill, at 13.
³¹ Direct Testimony of Dr. David G. Hill, at 13.

1 **Q. Do you have any concerns with Dr. Hill’s analysis of the potential of demand response**
2 **programs on the Company’s Design Day forecast?**

3 A. Yes. First, it is highly unrealistic to assume a 20% reduction to the Design Day forecast in
4 2025/26 because it requires several unreasonable assumptions to be true³² and, second, the
5 pilot programs cited in Exhibit DGH-2 are based on small sample sizes and are not
6 demonstrated to be applicable to Liberty.

7 **Q. What assumptions are necessary to assume that Liberty will experience a 20%**
8 **reduction in Design Day demand in 2025/26 due to demand response programs?**

9 A. There are several assumptions that would need to be met for the Company to experience a
10 20% reduction in Design Day demand in 2025/26. First, because Dr. Hill has assumed an
11 average 20% reduction due to demand response programs, every single Liberty customer
12 would need to install a smart thermostat to meet that target on a company-wide basis. In
13 other words, each of the Company’s approximately 95,000 customers³³ would need to
14 authorize and allow Liberty to install a smart thermostat in their home or business. Second,
15 every Liberty customer would need to participate in the demand response program. Third,
16 it would need to be assumed that on average all customers, including both heating and non-
17 heating, would experience a 20% reduction in Design Day demand. Fourth, it would need
18 to be assumed that customers would not exercise their discretion regarding level of comfort
19 and not adjust their thermostat on the Design Day.

³² Dr. Hill appears to agree at least to a certain extent. In response to Liberty Data Request 1-4 Dr. Hill stated, “Dr. Hill’s cited average demand reductions of 20% are per customer, and would not necessarily represent system savings, which would also depend on the adoption level.”

³³ See, Liberty Utilities (EnergyNorth Natural Gas) Corp., Form F-16 Annual Report, Year Ending December 31, 2020, at 28.

1 **Q. Are those assumptions reasonable?**

2 A. No, they are not. It is unlikely that all 95,000 customers in Liberty's service territory would
3 install smart thermostats in their homes or businesses by 2025/26. Without the equipment
4 installed, the customers would not be eligible to participate in a hypothetical demand
5 response program. In addition, even if it was assumed that customers have the proper
6 equipment installed, it is unlikely that all customers would participate in a hypothetical
7 demand response program. Dr. Hill provided no support for his assumption that the overall
8 demand reduction for both heating and non-heating customers would be 20%. Lastly,
9 given that the Design Day represents a day with a temperature of approximately negative
10 six degrees Fahrenheit, it is unlikely that all customers would be willing to forgo control
11 over their level of comfort and lower their thermostats.

12 **Q. Do the pilot programs cited by Dr. Hill support his assumption that Liberty could**
13 **experience a 20% reduction to the Design Day demand in 2025/26?**

14 A. No, they do not. Dr. Hill cites two pilot programs. The first is a residential demand
15 response program implemented by Southern California Gas Company ("SoCalGas") in
16 California, and the second is a commercial and industrial program implemented by the
17 National Grid utilities in New York. However, there are several issues with assuming the
18 results of the SoCalGas pilot program are applicable to Liberty.

19 First, the climate in Southern California is significantly different than in New Hampshire.
20 In Exhibit DGH-2, Dr. Hill cites to the direct testimony of Darren Hanway in Docket No.
21 18-11-005 before the California Public Utilities Commission as support for his findings
22 that a 16% reduction in demand due to demand response programs for residential customers

1 is reasonable.³⁴ Table 1-1 on page 2 of Appendix B to that testimony, shows the
2 temperatures for the AM period and PM period of each day during the event days in the
3 pilot program.³⁵ Temperatures during the event days averaged 48.9 degrees during the AM
4 period and 53.8 degrees during the PM period. The level of reduction in gas demand on
5 days with approximately 14 HDDs³⁶ cannot be compared to a Design Day for Liberty of
6 71.4 HDDs.

7 In addition, SoCalGas' pilot program lowered the demand during the event windows, but
8 did not necessarily lower the overall daily demand. In a review of the SoCalGas pilot
9 program, it was noted that, "Although this program reduced hourly gas consumption during
10 events, it didn't achieve any statistically significant daily gas savings because of
11 snapback."³⁷ That is, when compared to customers who were not enrolled in the pilot
12 program, those that were enrolled exhibited lower usage during an event window, but
13 higher usage when the event window ended. That "snapback" lowered the overall daily
14 savings from the demand response program.

15 Lastly, the number of participants in the pilot program on the event days in 2017/18 was
16 9,005,³⁸ which represents 0.1% of the approximately 6,000,000 customers in SoCalGas's
17 service territory in 2018.³⁹ The 20% demand reduction figure on which Dr. Hill relies is

³⁴ Exhibit DGH-2, at 16.

³⁵ The AM period was defined as 5:00 AM to 9:00 AM and the PM period was defined as 5:00 PM to 9:00 PM.
³⁶ The approximate average of 48.9 degrees and 53.8 degrees (i.e., 51.4 degrees).

³⁷ Luke Beckett, Clare Valentine, and Katherine Johnson, *Fired Up or Burned Out: An Overview of Emerging Gas Demand-Response Initiatives*, E Source, November 19, 2019, at 3.

³⁸ Direct Testimony of Darren Hanway, California Public Utilities Commission, Application 18-11-005, Appendix B, Table 1-1, at 2.

³⁹ Southern California Gas Company, SEC Form 10-K, For the Year Ending December 31, 2018, at 15.

1 based largely on a single winter of SoCalGas’s pilot program, which in itself relies on a
2 small sample of customers and has little, if any, applicability to Liberty or New Hampshire.

3 **Q. Do you have any similar concerns with the applicability of the National Grid pilot**
4 **program to Liberty?**

5 A. Yes. There are several factors related to the National Grid pilot program cited by Dr. Hill
6 that undermine the assumptions noted above that are necessary for Liberty to experience a
7 20% reduction in Design Day demand. For example, National Grid found that process
8 (i.e., non-heating commercial and industrial) customers were less interested in demand
9 response programs than anticipated “due to various interdependencies (e.g., arrival of raw
10 materials, impact on staff, delivery requirements for downstream customers).”⁴⁰ Again, as
11 noted above, to achieve a 20% reduction in demand on the Design Day, 100% of Liberty’s
12 customers would need to participate in the demand response program. That assumption is
13 unrealistic. In fact, National Grid concluded that the predicted penetration rate for the
14 number of participants in the demand response program was closer to 15%,⁴¹ which is
15 significantly lower than Dr. Hill’s assumed 100% penetration rate.

16 In addition, National Grid noted:

17 There remains a need to continue to collect data on DR and assess whether
18 participant Design Day performance can be quantified on non-Design Days.
19 During meetings with Department of Public Service (“DPS”) Staff early in
20 the Project, DPS Staff expressed an expectation that customer
21 noncompliance would rise in a non-linear fashion on Design Days so this is

⁴⁰ New York State Public Service Commission, *Gas Demand Response REV Demonstration Project in New York City and Long Island*, Case 16-G-0058 and Case 16-G-0059, April 30, 2020, at 27.

⁴¹ New York State Public Service Commission, *Gas Demand Response REV Demonstration Project in New York City and Long Island*, Case 16-G-0058 and Case 16-G-0059, April 30, 2020, at 28.

1 something that should be understand [SIC] in light of consideration of DR
2 as a non-pipeline alternative (“NPA”).⁴²

3 As shown in the above quote, the New York Department of Public Service Staff and
4 National Grid raised concerns with the likelihood that, as extremely cold temperatures
5 occur, customers are less likely to allow the utility to implement a service load reduction.
6 Similar to SoCalGas, the National Grid pilot included a small sample size of customers. In
7 the first two years (2017/18 and 2018/19), there were 16 customers enrolled. The third
8 year of the pilot (2019/20) did not include any event days due to an unseasonably warm
9 winter.⁴³

10 Dr. Hill’s use of those studies to assume a 20% decrease to the Company’s Design Day
11 demand forecast in 2025/26 is unreasonable, based on unrealistic assumptions, is
12 unsupported by the studies he cites, and cannot be relied upon when developing a resource
13 portfolio to meet customer requirements during extreme cold weather conditions. Similar
14 to Dr. Hill’s suggestion regarding Design Day planning standards, any recommendation to
15 modify the resources in the Company’s portfolio used to meet residential and commercial
16 customers’ demand during extreme winter weather conditions needs to be supported by
17 robust analysis and documentation, which is lacking in Dr. Hill’s testimony and should be
18 provided no weight by the Commission.

⁴² New York State Public Service Commission, *Gas Demand Response REV Demonstration Project in New York City and Long Island*, Case 16-G-0058 and Case 16-G-0059, April 30, 2020, at 21.

⁴³ New York State Public Service Commission, *Gas Demand Response REV Demonstration Project in New York City and Long Island*, Case 16-G-0058 and Case 16-G-0059, April 30, 2020, at 23-26.

1 **C. Other Issues**

2 **Q. What other issues does Dr. Hill suggest should be considered in the Commission’s**
3 **evaluation of the reasonableness of Liberty’s decision to enter into the TGP Contract**
4 **to meet the Company’s resource deficiency?**

5 A. Dr. Hill suggests that Liberty did not consider the effect of heat pumps and other electric
6 technologies on the demand forecast and, thus, should consider the “potential for
7 accelerated promotion and adoption of electrification technologies as non-pipe alternatives
8 to the on system-enhancements proposed as necessary to optimize the TGP supply
9 contract.”⁴⁴ In addition, Dr. Hill suggests that Liberty should “[c]onsider future scenarios
10 in which state and regional greenhouse gas emissions are reduced by 50 percent by 2030,
11 and by 80 percent or more by 2050.”⁴⁵ Finally, Dr. Hill expresses concerns that the on-
12 system enhancements will result in future stranded costs and suggests that new gas
13 infrastructure should rely on a depreciation rate of no longer than 20 years.⁴⁶ To support
14 his recommendation, Dr. Hill cites a whitepaper he co-authored, in which he recommended
15 that new gas infrastructure in Rhode Island should not have a depreciation rate beyond 20
16 years.⁴⁷

17 **Q. Are Dr. Hill’s concerns relevant to this proceeding?**

18 A. No, they are not. Dr. Hill ignores that this proceeding is for the approval of the TGP
19 Contract and not for the issues raised by Dr. Hill with respect to electrification, greenhouse
20 gas emissions targets, and stranded costs. As supported by Mr. Frink and OCA, the

⁴⁴ Direct Testimony of Dr. David G. Hill, at 13–14.

⁴⁵ Direct Testimony of Dr. David G. Hill, at 6.

⁴⁶ Direct Testimony of Dr. David G. Hill, at 19–20 and Exhibit DGH-3.

⁴⁷ Direct Testimony of Dr. David G. Hill, at 19–20 and Exhibit DGH-3.

1 Company faces a resource deficiency in the near-term and the Company's decision to enter
2 into the TGP Contract is reasonable and prudent as the TGP Contract is the most cost-
3 effective resource to reliably meet the needs of customers. The TGP Contract under
4 consideration in this proceeding improves the Company's gas supply portfolio and is
5 consistent with the Company's obligation to service its residential and commercial
6 customers. Dr. Hill's concerns regarding these other issues are not relevant to this
7 proceeding.

8 **Q. What is your response to Dr. Hill's testimony as it relates to electrification?**

9 A. Liberty, under the regulation of the Commission, provides homeowners and businesses in
10 New Hampshire with the option to choose natural gas, and customers are making the
11 decision to install natural gas in new construction or switch to natural gas from other fuels
12 as evidenced by the growth in demand for natural gas. In addition, the Company uses
13 Commission approved planning standards to forecast natural gas demand under extreme
14 weather conditions and develops a resource portfolio to reliably meet those expected
15 requirements. The TGP Contract under consideration in this proceeding improves the
16 Company's gas supply portfolio and is consistent with the Company's obligations to
17 service its residential and commercial customers.

18 Dr. Hill provides no basis for his conclusions that heat pumps are a feasible solution for
19 cold weather climates like New Hampshire. In fact, a report issued by the American Gas
20 Association ("AGA") stated that, "[a]ctual space heating efficiency [for heat pumps] varies
21 based on winter temperatures, with efficiency declining as the temperature becomes

1 colder”, and further concluded that “electric heat pump efficiency is lowest” on the coldest
2 winter days.⁴⁸ The same AGA report noted that:

3 ...heat pump installations are often sized to meet air conditioning load
4 requirements rather than heating requirements. Oversizing a heat pump to
5 meet peak winter requirements results in more expensive equipment, lower
6 operating efficiency, and additional wear and tear on the equipment during
7 the summer cooling season.

8 ***

9 In addition, at very low temperatures, heat pumps typically cannot provide
10 adequate heat and require some form of back-up energy, typically electric
11 resistance heat.⁴⁹

12 Actual installations of heat pumps by homeowners and businesses of New Hampshire have
13 been minimal, and there is no evidence to suggest that installations of electric heat pumps
14 in New Hampshire will experience a significant increase over the forecast period.

15 Finally, Dr. Hill fails to acknowledge that heat pumps require consumption of natural gas
16 to generate electricity since natural gas is the marginal fuel in the regional power system
17 (i.e., ISO-NE), and on the coldest winter days, the region increases its reliance on oil- and
18 coal-fired generation. For example, ISO-NE noted that during the extreme cold spell from
19 December 26, 2017, to January 9, 2018, oil-fired generation accounted for 27% of the
20 regional fuel mix, with natural gas representing 24%, and coal representing 6%.⁵⁰

⁴⁸ American Gas Association, Implications of Policy-Driven Residential Electrification, July 2018, at 4 and 7.

⁴⁹ American Gas Association, Implications of Policy-Driven Residential Electrification, July 2018, at 16.

⁵⁰ See, ISO-NE, About Us, Key Grid and Market Stats, Resource Mix, <https://www.iso-ne.com/about/keystats/resource-mix/>, accessed October 9, 2019.

1 **Q. What is your response to Dr. Hill’s recommendation that the Company “[c]onsider**
2 **future scenarios in which state and regional greenhouse gas emissions are reduced by**
3 **50 percent by 2030, and by 80 percent or more by 2050”?**⁵¹

4 A. The only discussion of potential greenhouse gas emissions targets in Dr. Hill’s direct
5 testimony is in the summary of his recommendation. As such, it is impossible to determine
6 why Dr. Hill has recommended the specific targets he suggests or the reasonableness of
7 that recommendation.⁵² Dr. Hill has also not provided a base year for those greenhouse
8 gas emissions reduction targets, so, again, the company cannot evaluate the reasonableness
9 of his recommendation.

10 **Q. What is your response to Dr. Hill’s concerns regarding the on-system enhancements?**

11 A. As noted by Staff witness Mr. Frink, the Company is not seeking recovery of the on-system
12 enhancements in this proceeding. Liberty will request recovery for any on-system
13 enhancements in a future rate case, pursuant to the defined regulatory process.

14 In addition, Dr. Hill fails to acknowledge the obligation of a public utility and the long-
15 term nature of utility investments. The Company and its predecessors have been providing
16 natural gas service to homes and businesses in New Hampshire for many decades, and have
17 served some locations for well over 100 years. As a public utility, the Company has an
18 obligation to provide reliable service to those customers who have chosen or who decide
19 to choose natural gas – those choices are long-term decisions and investments by
20 customers. Liberty as a public utility needs to invest capital in long-term infrastructure or

⁵¹ Direct Testimony of Dr. David G. Hill, at 6.

⁵² Dr. Hill notes in response to data request Liberty 1-2 that “[t]he recommended percentage reductions are generally consistent with the statewide targets adopted by states throughout the Northeast...”

1 contracts, which include distribution investments as well as gas supply investments, to
2 reliably serve existing and new customers.

3 Given the subjective nature of his analysis and the lack of applicability to Liberty, it is
4 unreasonable and unrealistic to assume that on-system enhancements associated with the
5 TGP Contract are likely to result in stranded costs. Lastly, this proceeding is for the
6 approval of the TGP Contract and not for an issue raised by Dr. Hill based on a study
7 authored by Dr. Hill, submitted in another jurisdiction.

8 **V. CONCLUSIONS AND RECOMMENDATION**

9 **Q. Please summarize your conclusions and recommendation.**

10 A. First and foremost, Liberty has a need for additional supply resources to meet projected
11 demand requirements. The TGP Contract is the least-cost resource alternative and will
12 increase the reliability of the Company's resource portfolio, which is used to provide
13 reliable service to customers during extreme weather events. Mr. Frink comes to the same
14 conclusion that the TGP Contract is reasonable and prudent and should be approved by the
15 Commission, subject to several recommended reporting requirements and conditions. As
16 noted above, although OCA did not file direct testimony in this proceeding, it similarly
17 supported the TGP Contract.⁵³ Dr. Hill's testimony is an outlier and provides no
18 information, analysis, or data that would suggest otherwise, or that the TGP Contract is not
19 a reasonable and prudent decision. As such, Liberty recommends the Commission approve
20 the TGP Contract.

⁵³ See, March 24, 2021 Transcript, at 16.

1 **Q. Does this conclude your rebuttal testimony?**

2 **A.** Yes, it does.