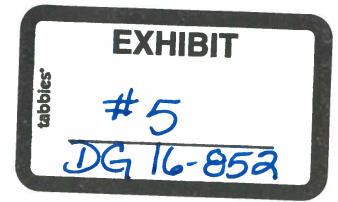


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STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

In the matter of

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

Docket No. DG 16-852

Petition for Approval of Franchise in City of Lebanon and Town of Hanover

DIRECT TESTIMONY

OF

Dr. Pradip K. Chattopadhyay
Assistant Consumer Advocate

July 17, 2017

1 **I. Introduction**

2 **Q. Please state your name, business address and occupation.**

3 A. My name is Pradip K. Chattopadhyay. My business address is 21 South Fruit
4 Street, Suite 18, Concord, New Hampshire. I am employed as the Assistant Consumer
5 Advocate/Rate and Market Policy Director with the New Hampshire Office of
6 Consumer Advocate (OCA).

7 **Q. Please describe your formal education and professional experience.**

8 A. I have a Ph.D. in Economics from the University of Washington, Seattle, which I
9 earned in 1997. I have also taken courses in City and Regional Planning with
10 applications to Energy Planning from Ohio State University in 2001-02. I have taught
11 several courses in economics at the University of Washington as an instructor and
12 adjunct faculty at its Business School. I am also associated with the Southern New
13 Hampshire University (SNHU) as an adjunct faculty, where I teach several courses in
14 economics.

15 From March 1998 to October 1999, I was a consultant with the National Council
16 of Applied Economic Research, New Delhi, India. From November 1999 to August
17 2001, I was the Economist at the Uttar Pradesh Electricity Regulatory Commission
18 (UPERC) in India, and advised UPERC on tariff issues. From September 2001 to June
19 2002, I worked at the National Regulatory Research Institute, Columbus, Ohio, as a
20 graduate research associate while pursuing advanced courses in Energy Planning in the

1 City and Regional Planning Program at Ohio State University. From June 2002 to July
2 2002, I worked at the World Bank, Washington D.C. as a short-term consultant/intern
3 with its Energy and Water Division.

4 I worked at the New Hampshire Public Utilities Commission (Commission) from
5 August 2002 to January 2007 in the capacity of a utility analyst. My responsibilities at
6 the Commission as an analyst were in electric utility issues including analyzing and
7 advising the Commission on rate design, cost of capital issues, wholesale market issues,
8 and other regional matters. I briefly worked at the Massachusetts Department of
9 Telecommunications and Energy (later reorganized into Department of Public Utilities
10 (MA-DPU)) starting in January 2007 as an Economist. At MA-DPU, I represented the
11 staff and examined gas demand estimation and forecasting, decoupling issues, and
12 environmental remediation matters. I returned to the Commission in June 2007 to join
13 its Telecom Division as its Assistant Director, and continued in that position until
14 December 2010. I was also helping other divisions as an expert witness in economics-
15 related issues as well as advising the Commission on regional electric matters including
16 FERC jurisdictional issues. I joined the Commission's Regional Energy Division in
17 January 2010 as the Regional Energy Analyst, and was advising the Commission in that
18 capacity until I joined the Antitrust and Utilities Division, Office of the Minnesota
19 Attorney General, in August 2013. I came back to New Hampshire in March 2014 and
20 worked as an individual consultant until the end of August, 2014, representing the
21 Minnesota Attorney General. I joined Liberty Utilities at the end of August, 2014 as a

1 Forecasting Analyst for its Energy Procurement Department. I worked with Liberty
2 Utilities for about three months, before starting my own consultancy firm. In
3 December 2014, I joined the OCA as its Rate and Market Policy Director. I was later
4 appointed as the Assistant Consumer Advocate.

5 **Q. Have you previously provided testimony before this Commission?**

6 A. Yes.

7 **Q. In which dockets did you provide testimonies before this Commission?**

8 A. I provided testimony before the Commission in the following dockets:

- 9 • DE 03-200 – rate design testimony which was about delivery rates for retail
10 ratepayers of Public Service of New Hampshire (PSNH);
- 11 • DE 06-028 - cost of capital testimony which was also about PSNH’s delivery
12 rates;
- 13 • DT 07-027 - competition testimony in retail telephony;
- 14 • DG 08-009 - cost of equity testimony which related to gas delivery rates of
15 National Grid NH;
- 16 • DE 09-035 - cost of equity testimony in the matter of electric distribution rates
17 (PSNH).
- 18 • DG 14-380 – approval of firm transportation agreement (Liberty Utilities)
- 19 • DG 15-155 – Petition by Valley Green, LLC requesting franchise in City of
20 Lebanon and Town of Hanover, New Hampshire

- 1 • DG 15-289 – Petition by Liberty Utilities requesting franchise in City of
- 2 Lebanon and Town of Hanover, New Hampshire
- 3 • DG 15-494 – Petition of Liberty Utilities (EnergyNorth Natural Gas)
- 4 requesting approval of firm transportation contract (NED);
- 5 • DE 16-384 – Petition of Unitil for Permanent Rate Increase.
- 6 • DE 16-383 – Petition of Liberty Utilities for Permanent Rate Increase

7 **Q. Have you ever provided testimonies and affidavits before other Commissions?**

8 A. Yes. I have testified on cost of capital before the Minnesota Public Utilities
9 Commission in dockets G008/GR-13-316 and GR 13-617. I have also provided an
10 affidavit before the Federal Energy Regulatory Commission in a FERC Docket ER 09-14-
11 000 on NSTAR’s petition for ROE incentive adders on behalf of the New England
12 Conference of Public Utilities Commissioners (NECPUC).

13 **Q. What is the purpose of your testimony in this proceeding?**

14 A. The purpose of my testimony is to state the OCA’s position on the petition by
15 Liberty Utilities in this docket requesting a franchise in the City of Lebanon and Town
16 of Hanover, as it particularly relates to the interests of residential customers.

17 **Q. Please briefly discuss the Company’s request for the aforementioned**
18 **franchise.**

19 A. The franchise request involves Liberty Utilities procuring Liquefied Natural Gas
20 (“LNG”) and Compressed Natural Gas (“CNG”) supplies and distributing them as

1 natural gas to end-user customers through an off-pipeline distribution system,¹
2 comprised of the conventional underground pipelines, service risers and meters, as well
3 as a fueling facility to supply the distribution system with natural gas. The proposed
4 fueling facility will be comprised of an “LNG storage and vaporization facility along
5 with a CNG decompression facility to supply the natural gas to the distribution system
6 and customers.”² Liberty Utilities has already executed option agreements for two land
7 parcels that are being considered for the siting of the fuel facilities.³ An important
8 element of Liberty Utilities’ petition is that the distribution rates for the requested
9 franchise are proposed to be the same as EnergyNorth’s existing distribution rates.
10 Another crucial element of the Company’s proposal is that it be allowed to commence
11 construction once the utility has obtained commitments from enough customers to
12 ensure recovery of 25 percent of the direct cost associated with the project. Also, per the
13 Company’s proposal, the cost of the fueling facility and associated land parcel will be
14 recovered through the Cost of Gas Rate, which will be “separately calculated and a

¹ An “off-pipeline distribution system” is one that is not connected to the rest of the company’s distribution network and, ultimately, to the interstate natural gas transmission network. This implies that the potential customers in Lebanon and Hanover will completely rely on CNG and LNG deliveries. They may benefit from economies of scale in procurement of CNG and LNG supplies (EnergyNorth’s existing customers already rely a bit on LNG supplies, so they may benefit as well), but as potential customers will not have access to natural gas supplies directly from the interstate natural gas transmission network. The pricing dynamics will therefore be very different for such customers than that of EnergyNorth’s existing customers.

² See William J. Clark Testimony, Bates Page 009, Lines 4-6.

³ The company has modeled only one of the parcels as the location of the facility while noting that the second parcel “is being evaluated for future uses.” See William J, Clark Testimony, Bates Page 12, Lines 12-13.

1 separate provision will be added to the Company's tariff."⁴ For greater detail see the
2 pre-filed direct testimonies of the Company's witnesses.

3 **Q. Please briefly discuss your understanding of the public good requirement for**
4 **granting a franchise.**

5 A. According to RSA 374:22, "No person or other business entity ... shall commence
6 business as a public utility within the state ... without having first obtained the
7 permission and approval of the Commission." The Commission provides such
8 approval in the form of a utility franchise, which grants the applicant the right to
9 deliver a particular type of utility service in a defined geographic location. In
10 determining whether to grant a utility franchise to a particular applicant, the
11 Commission is guided by the "public good" requirement codified in RSA 374:26, which
12 states:

13 The Commission shall grant such permission whenever it shall, after due
14 hearing, find that such engaging in business, construction, or exercise of
15 right, privilege, or franchise would be for the public good, and not
16 otherwise; and may prescribe such terms and conditions for the exercise of
17 the privilege granted under such permission as it shall consider for the
18 public interest.

19 RSA 374:26.

20 As the above is stated in very general terms, the specifics in the Commission's
21 recent Order in Docket No. DG 15-362, granting a franchise request to Liberty elsewhere
22 in the state, are particularly instructive for the purpose of my analysis. *See Liberty*
23 *Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities*, Order No. 25,987, at 11. In

⁴ See David B. Simek Testimony, Bates Page 309, Lines 16-17.

1 essence, in determining whether a franchise is in public good, the Commission
2 considers several factors:

3 [1] whether the franchise applicant has the financial, managerial, and
4 operational resources to successfully and safely serve customers in the
5 intended territory, [2] whether the financial projections used to
6 economically justify the franchise petition are reasonable and in
7 conformance with accepted financial, accounting, and business standards,
8 [3] in the case of existing New Hampshire public utilities, whether the
9 franchise expansion would pose an unacceptable risk of cross-
10 subsidization or other financial risk to existing utility ratepayers, and [4]
11 whether the franchise petition's approval would offer benefits to the
12 public.

13 *Id.*

14 **Q. Please describe how your understanding of the public good requirement**
15 **informs your analysis.**

16 A. The determination as to whether the petitioning utility has the financial,
17 managerial and operational resources to successfully and safely serve customers in the
18 intended territory requires specialized enough expertise that it is outside the scope of
19 my testimony. In representing the interest of residential ratepayers, though,
20 considerations (2) to (4) are especially germane, and they inform my recommendations
21 that follow. Before I delve into the OCA's recommendations, however, given the
22 importance of actual commitments from anchor customers in informing the question of
23 whether a franchise is financially viable or not, it is important to consider the question
24 of whether Liberty Utilities has secured any commitment from an anchor customer.

1 **Q. Has Liberty Utilities secured commitments from any anchor customer from the**
2 **Lebanon and Hanover area yet?**

3 A. No. In response to data request OCA 1-34a., the Company stated:

4 Anchor customers are seeking a level of certainty before signing
5 agreements to switch fuels due to the length and outcome of the previous
6 franchise dockets and uncertainty over the timeline for resolution of this
7 proceeding. A decision by a potential anchor customer to switch its fuel
8 source requires planning and budgeting on its part, so uncertainty as to
9 timing makes it difficult for a business to commit to make such a change
10 until some of the uncertainty has been removed. However, Liberty has
11 been working with existing CNG providers on a Transportation service
12 rate that would allow existing or future CNG customers to utilize Liberty
13 infrastructure, which could result in beneficial impacts for Liberty, CNG
14 providers, as well as the customer. Discussions have been positive to
15 date.

16 Also, in response to data request STAFF-1-4 that seeks details about the status of
17 commitments from anchor customers, the Company states:

18 The Company has not been in direct contact with these customers since
19 filing a new petition to serve the communities. Based on prior
20 conversations it became evident these customers need certainty the
21 franchise will be granted, the cost of gas service, and a timeline of when
22 service will be available. Liberty's sales team is prepared to initiate a full
23 scale marketing campaign for all potential customers once a regulatory
24 order becomes more proximate. These anchor customers will be handled
25 by the commercial account manager throughout the process. It is
26 anticipated that only a few of these customers would potentially be
27 candidates for a special contract. However, such determinations would
28 involve specifics related to current and future operations of those
29 customers and would depend on the volumes and nature of service and
30 whether such circumstances taken in their totality would support a
31 departure from the standard terms and conditions of the Company's tariff.

32
33 In essence, the Company appears to contend that potential anchor customers are
34 in a waiting mode and will reveal their actual interests only after the franchise is

1 granted and customers have a better picture of the future cost of gas. As of now, the
2 Company has only shared its expectations about annual uses by anchor customers in
3 the proposed phases of the franchise development (*See Attachment 1, Company's*
4 *CONFIDENTIAL* response to STAFF 1-6), not actual commitments.

5 **Q. Without commitments from anchor customers, do you believe the Commission**
6 **should approve the franchise?**

7 A. No. Without sufficient commitments from customers in the Lebanon and
8 Hanover region, the Company cannot meet its burden to demonstrate the lack of an
9 unacceptable risk of cross-subsidization by existing customers of Energy North.

10 **Q. Does the OCA have a recommendation regarding what constitutes a sufficient**
11 **level of commitment to grant approval to the requested franchise?**

12 A. Yes. Upon review of the Company's responses to the OCA's data requests, the
13 OCA not only has a specific recommendation on the level of commitment that the
14 Commission should require the Company to demonstrate before granting a franchise,
15 but also has two other important recommendations.

16 **Q. Please briefly summarize the OCA's three recommendations.**

17 A. First, the OCA recommends that the Commission should grant the franchise
18 approval only if the Company demonstrates acquisition of sufficient commitments from
19 customers to recover the projected distribution-related direct costs of the initial phase in
20 their entirety over eight years for residential and six years for commercial customers.

1 Second, construction of a future phase should be allowed only after the
2 Company acquires contractual commitments that at least recover the projected
3 distribution-related direct cost of that expansion over eight years for residential and six
4 years for commercial customers.

5 Third, any shortfall in the recovery of required revenue associated with a
6 particular phase of the instant franchise should be at the expense of the Company's
7 shareholders for the first five years. To track the financial viability of the franchise, the
8 Commission should require the Company to file an annual status update detailing
9 revenues and customers to date, for the first five years of operation for each of the
10 phases, if the franchise is granted.

11 **II. Recommendations**

12 **A. Recommendation 1: Franchise Approval Requires Commitments Equivalent to** 13 **Distribution-Related Direct Cost**

14 **Q. Please explain the basis for your recommendation that the Commission should**
15 **approve the requested franchise only if the Company demonstrates acquisition of**
16 **sufficient commitments to recover projected distribution-related direct costs in their**
17 **entirety in the initial phase of the project over eight years for residential and six**
18 **years for commercial customers.**

19 **A. Approving Liberty Utilities' proposed off-pipeline franchise without sufficient**
20 **commitments from customers in the franchise area prematurely assumes away the**

1 possibility that other entities already provide or may provide more cost-effective
2 alternatives to such customers. Granting the franchise without an actual
3 demonstration of sufficient commitments potentially exposes existing Energy North
4 customers to the unjust burden of cross-subsidizing new customers from Lebanon and
5 Hanover.

6 **Q. As for contractual commitments, please explain why you recommend that the**
7 **Company must recover 100 percent of the distribution-related direct cost associated**
8 **with the initial phase before the franchise is approved?**

9 A. Based on the financial analysis provided by the Company, the OCA does not
10 agree with the Company that the 25 percent trigger for permitting construction protects
11 residential ratepayers from financial risks sufficiently to allow Liberty Utilities to
12 proceed with a new franchise territory, particularly since the franchise would be off-
13 pipeline and predicated on a supply requirement supported solely by LNG and CNG
14 sources.

15 A look at the Company's proposed Phase 1 of the franchise expansion is very
16 helpful in understanding the petition's shortcomings. The Company's response to data
17 request OCA Tech 1-3 indicates that the requested "25 percent" trigger for construction
18 would generate distribution revenue of [REDACTED], which is only [REDACTED] of the first
19 year's revenue requirement. This is grossly inadequate with respect to reasonably
20 containing the risks EnergyNorth's existing customers and prospective customers in
21 Lebanon and Hanover will face if the franchise expansion proceeds as requested. The

1 “25 percent” cut-off was reasonable in the case of Windham and Pelham given the
2 circumstances in those towns (discussed *infra* at page 13-14). In the case of Lebanon and
3 Hanover, given the off-pipeline nature of the proposed franchise, the lack of any
4 tangible support from the City of Lebanon and the Town of Hanover, and the
5 uniqueness of the fuel and the cost-of-gas dynamics, the OCA believes that the
6 Company must acquire contractual commitments that at least cover the direct cost of
7 the initial phase before the Company is allowed to exercise franchise rights in Lebanon
8 and Hanover.

9 **Q. Please discuss your understanding of the support from City of Lebanon and**
10 **Town of Hanover for the requested franchise.**

11 A. At the time of writing this testimony, it is not clear to me as to what position
12 either the City of Lebanon or the Town of Hanover (each of which has intervened in this
13 docket) will eventually take with respect to Company’s franchise request. Based on the
14 Company’s response to data request OCA 1-27 and the intervention petitions one
15 cannot conclusively determine whether the City or the Town is even somewhat
16 supportive of the Company’s request for franchise. In contrast, as noted in William J.
17 Clark’s Testimony at Bates Page 066, with respect to the franchise request in Windham
18 and Pelham, Liberty Utilities “consistently met with officials from Pelham and
19 Windham, their engineering consultants, leaders of town departments and made
20 presentations to both Boards of Selectmen on multiple occasions. The result was a
21 unanimous recommendation from the Board of Selectmen in each town to support the

1 expansion of natural gas.” In Docket DG 16-362, Town of Pelham actually joined the
2 settlement with the Company in support of its franchise request. More importantly,
3 even at the time STAFF submitted its testimony, it was known that Town of Pelham
4 was interested in converting its municipal facilities to natural gas. Also, as noted in
5 STAFF’s testimony, the Company had filed supplemental testimony stating it had a
6 Service Line Agreement (SLA) with a developer to serve 400 individually metered
7 residential units to be located in Windham. In short, while there was some evidence of
8 tangible support from stakeholders in Windham and Pelham, there is no evidence at
9 this stage that either City of Lebanon or Town of Hanover support the Company’s
10 franchise request. Given the circumstances discussed above, at least at this point, there
11 is a fair degree of uncertainty as to the risks associated with the requested franchise as a
12 business proposition.

13 **Q. Please discuss the fuel and cost-of-gas dynamics that inform your first**
14 **recommendation.**

15 A. While the distribution costs may well be similar between systems that are either
16 off-pipeline or on-pipeline, the cost of gas is expected to vary significantly between the
17 two system types. Unlike the on-pipeline franchise expansion in Pelham and
18 Windham, the instant petition relies only on CNG and LNG as fuel sources. In these
19 circumstances, the customers in Lebanon and Hanover will have to deal with the cost of
20 gas rate’s expected dynamics (pricing volatility and supply conditions associated with
21 LNG and CNG, uniqueness of the facility cost, and Liberty Utilities’ cost of purchasing

1 the project site). This creates a very different financial proposition for potential
2 customers in Lebanon and Hanover compared to those who might convert to gas in the
3 rest of Liberty Utilities' franchise area. Indeed, the vintage of customers' current
4 heating systems and whether those systems are on oil or propane will also influence
5 their decisions. In essence, if the cost of gas – including any LNG/CNG facility cost –
6 does not compare well with oil and propane prices, customers are not likely to switch to
7 Liberty Utilities' gas distribution service.

8 **Q. Please explain how expectations about cost of gas vis-à-vis propane and oil prices**
9 **will influence the customers' interest in Liberty Utilities' gas service.**

10 A. A good way to understand how customers' decisions to switch are impacted
11 would be to discuss a hypothetical scenario building upon the Company's response
12 provided to data request OCA 2-1 Tab R-3, which is a reasonable template to analyze
13 the economics of conversion for residential heating customers. It is also helpful to
14 resort to the Company's response to data request STAFF Tech 1-2 and use the winning
15 bid for CNG/LNG in Keene to inform the example that I discuss below. Let's assume
16 that the customer expects the non-commodity costs to be \$0.10 per therm (all months).
17 Also, let's assume that economies of scale lead to a commodity costs of 30 percent and
18 40 percent lower than the winning bid in Keene as reported in Mr. William J. Clark's
19 Testimony, CONFIDENTIAL Bates Page 94, respectively for the winter months (Nov. to
20 March), and the summer months (April to October). Speaking strictly about R3
21 (residential heating) customers and assuming that the average R3 customer uses 850

1 therms annually,⁵ we can determine whether and to what extent switching from oil or
2 propane to Liberty Utilities' gas service results in customer savings. Analytically, to
3 arrive at a reasonable estimate, that can be done by replacing the cost of gas numbers in
4 the R3 tab of Attachment OCA 2-1 by aforementioned rates, and using the latest oil and
5 propane prices as reported at the New Hampshire Office of Energy and Planning
6 ("NHOEP")'s web page (data from July 5th, 2017, webpage visited on July 14th, 2017);
7 assume that the customer in question expects the oil and propane prices to persist at
8 current levels in the future.

9 Under the hypothetical scenario above, the switching will lead to savings only in
10 the case of propane ([REDACTED]). An existing customer currently using oil
11 would actually expect to pay [REDACTED] more if taking service from Liberty's proposed
12 distribution system. For customers with lower annual consumption, *ceteris paribus*, the
13 situation will be even less attractive. Likewise, if the customer expects the cost of gas to
14 be higher and annual consumption to be significantly lower, it is possible that switching
15 away even from propane may be unattractive. Also, if a locality is subjected to
16 Managed Expansion Program (MEP) rates,⁶ *ceteris paribus*, the economics of switching
17 becomes even more unattractive.

⁵ The Company assumes the representative heating residential customer consumes [REDACTED] therms annually when modeling the analyses in responses to Attachment OCA 1-46-CONFIDENTIAL and OCA Tech 1-3-CONFIDENTIAL, but Bates Page 67 of the Testimony relies on the assumption that a representative heating residential customer consumes [REDACTED] therms annually.

⁶ EnergyNorth's Managed Expansion Program Rates were approved by the Commission in Order No. 25,933 and allow customers to pay a 30 percent premium over regular distribution rates in exchange for reducing otherwise necessary contributions in aid of construction (CIAC).

1 If cost of gas rates were considerably lower, it is possible that some customers
2 currently heating with oil may find cost savings by switching to gas, but only if those
3 savings are substantial enough to justify the up-front cost of conversion.⁷ Ultimately,
4 whether the requested franchise is viable hinges on what cost of gas rates customers
5 will face or expect to face in the near future, and what prior commitments have been
6 acquired by the Company.

7 Needless to say, without a robust analysis of potential customers in Lebanon and
8 Hanover by current heating fuel sources, it is not possible to determine with any
9 reasonable accuracy whether there will be adequate interest for Liberty Utilities' gas
10 service to ensure the project's viability in the near future. Unfortunately, the Hanover
11 and Lebanon Expansion Plan (William J. Clark Testimony, Attachment WJC-8) did not
12 provide much insight into the residents' existing fuel sources for their heating needs,
13 and vintage information. Also, per response to data request OCA Tech 1-1, the
14 Company does not have estimates of projected customers by current fuel type across
15 rate classes for the different phases.⁸ It seems even under reasonable assumptions about

⁷ Conversion costs can amount to \$7,000-\$12,000 (See DG 13-198, December 4, 2013 hearing transcript p. 23, lines 21-24). As an example, let's assume that the conversion cost is expected to be \$7,000, and the customer expects to recover those costs over fifteen years. Ignoring time discounting and vintage considerations, the savings will have to be at least 34.5 percent per year to make conversion economically worthwhile.

⁸ It is the Company's contention (see response to OCA Tech 1-1) that "[g]athering such information prior to obtaining franchise rights would come at a substantial cost and, thus, it is premature to gather specific prospect information at this time." The OCA asserts that to determine whether an off-pipeline franchise is viable or not, the fuel switching dynamics need to be understood with a reasonable degree of precision. Of course, to the extent the Company's partnership with ICF and the use of a Strategic Intelligence Management System ("SIMS") and the Gas Availability Tool ("GAT") is able to provide a more granular look at the Town of Hanover and City of Lebanon, a more informed picture of the fuel usage would emerge. Based on the discussions that the OCA had with the Company during the technical session held

1 commodity prices for LNG and CNG, without greater visibility on how cost of gas rates
2 will pan out in the near future, it is unlikely that many residential customers currently
3 using oil for heating will be eager to switch to Liberty Utilities' offering.⁹

4 **Q. Have you explored any data on your own with respect to current fuel usage by**
5 **residential customers in Lebanon and Hanover?**

6 A. Yes. As the Company's first phase of the franchise is focused on Lebanon,¹⁰ it
7 was helpful to look at the heating fuel usage data for the City of Lebanon as tracked by
8 the American Community Survey (ACS), 2011-2015.¹¹ Though the data is not granular
9 enough to more pointedly determine the residential customers' potential under phase 1,
10 it is very helpful to note that the aforementioned survey estimates that 48.5 percent of
11 the occupied housing units were heated with fuel oil and 22.3 percent were heated with
12 propane in City of Lebanon during 2011-2015.¹² Comparing the ACS estimate for the

on June 15, 2017, it is our understanding that SIMS and the GAT are able to provide the necessary granular information. The OCA believes that the Hanover and Lebanon Expansion Plan should have relied on the SIMS and the GAT to get a better picture of the customers' interests in switching from their existing fuel to Liberty Utilities' proposed service. The Hanover and Lebanon Expansion Plan submitted in the Company's petition is ostensibly lacking in that analysis, especially with respect to residential customers.

⁹ As for businesses, the Company actually reports the existing fuel usage for the ten potential anchor customers that the Company views as good prospects. These prospects are however not backed by demonstrated commitments yet.

¹⁰ In response to data request OCA 1-11, the Company indicated that its "first residential customers encountered along the proposed route are located in the area of Waterman Avenue in Lebanon."

¹¹ Source: <https://factfinder.census.gov>; See Attachment PKC-1, downloaded on 07/03/2017.

¹² Fuel Oil represents "Fuel oil, kerosene etc." and Propane is "Bottled tank, or LP gas" in the tables in Attachment PKC-1. For a general discussion of the winter heating realities in New Hampshire, also see <http://www.nhes.nh.gov/elmi/products/documents/ec-winter-heating.pdf>

1 five year period 2011-15 to the five year period 2009-13,¹³ it appears that there may have
2 been a marginal uptick in the use of propane and a marginal fall in the use of oil (in
3 terms of number of occupied houses). In the absence of more granular data, the best
4 estimate I can offer is that a large percentage of the residential customers rely on oil in
5 Lebanon and Hanover. If that is indeed the case, given the current economics of oil
6 relative to LNG and CNG, the prospects for a substantial number of residential
7 customers switching to Liberty Utilities' gas service do not appear to be encouraging.

8 **Q. Do you have any additional thoughts about the reasonability of the OCA's**
9 **recommendation that the Company must secure commitments equal to 100 percent of**
10 **the direct cost before the franchise is approved?**

11 A. Yes. Based on the response to data request OCA Tech 1-3 about Phase 1, one can
12 estimate the expected revenue under the OCA's recommendation for a couple of scenarios that
13 work as limiting cases. We can look at (1) what happens if the commitments come first from
14 rate classes with the highest Gross Profit Margins ("GPM") per DTH, and (2) what happens if
15 the commitments first come from rate classes with the lowest GPM per DTHs (*see* Attachment
16 PKC-2). In the "highest GPMs" scenario we get [REDACTED], and in the "lowest GPMs" scenario
17 we get [REDACTED]. It is reasonable to conclude that the "100 percent" direct cost cut-off would
18 roughly yield [REDACTED] as annual revenue, or [REDACTED] of the first year's revenue requirement.
19 It is very reasonable to expect the Company to first acquire commitments that ensure recovery
20 of about [REDACTED] of the revenue requirement for the unique off-pipeline system being
21 proposed for Lebanon and Hanover before the requested franchise is approved, especially in

¹³ See pages 1 and 3 of Attachment PKC-1.

1 the absence of a thorough business case to begin with.¹⁴ Again, assuming the scenarios depicted
2 above, the range for annual dekatherms is [REDACTED]. Even in terms of the
3 resulting annual dekatherms, it is very reasonable to expect the Company to acquire such
4 commitments before the proposed off-pipeline franchise is approved.

5 **Q. Are you concluding that the franchise as requested is not viable?**

6 A. Yes. It is the OCA's contention that the Company has not met the burden of
7 proof to justify the granting of the requested franchise under the terms it has proposed.
8 Ultimately, what matters is what potential customers expect the cost-of gas dynamics to
9 be in view of their current circumstances. Those expectations will be central in
10 determining their willingness to commit to Liberty Utilities' distribution service. If
11 expectations about LNG (and CNG) price volatility and supply trends, in conjunction
12 with expectations about fueling facility and land costs discourage enough residents and
13 businesses to contract for gas delivery independent of Liberty's distribution services,
14 the franchise cannot be viable. On the other hand, if Liberty Utilities is able to acquire
15 sufficient commitments from customers as recommended by the OCA, the franchise can
16 be reasonably expected to achieve viability in the future without having to rely on rates
17 that are based on unreasonable cross subsidies. In conclusion, based on the analysis of
18 the first phase of the proposed project, the OCA contends that the need to acquire
19 commitments to at least recover distribution-related direct cost in its entirety is a good

¹⁴ For an example of a thorough business plan, *see*
http://www.puc.state.nh.us/Regulatory/Docketbk/2015/15-289/TESTIMONY/15-289_2016-01-22_STAFF_ATT_DTESTIMONY_S_FRINK.PDF

1 way to strike a reasonable balance between the risks being shared by Company's
2 shareholders and by the ratepayers (especially when viewed in tandem with the
3 recommendation that any shortfall in the recovery of required revenue associated with
4 a particular phase of the instant franchise should be at the expense of the Company's
5 shareholders for the first five years) before the Commission allows the Company to
6 exercise the requested franchise right.

7 **B. Recommendation 2: Future Phases Require Commitments Equivalent to**
8 **Distribution-Related Direct Cost**

9 **Q. Please explain the basis for your recommendation that construction of a future**
10 **phase should be allowed only after the Company acquires contractual commitments**
11 **that at least recover the projected distribution-related direct cost of that expansion**
12 **over eight years for residential and six years for commercial customers.**

13 A. As indicated before, the same considerations that apply for the phase 1 with
14 respect to whether a utility service is viable or not are important for the future phases as
15 well. To strike a reasonable balance between the risks shared by the Company's
16 shareholders and the ratepayers, the OCA recommends that construction of a future
17 phase should be allowed only after the Company acquires contractual commitments
18 that at least recover the projected distribution-related direct cost of that expansion over
19 eight years for residential and six years for commercial customers.

20 **C. Recommendation 3: Shareholders Bear the Risk of Revenue Shortfalls for Five**
21 **Years**

1 **Q. Finally, please explain the basis for your recommendation that any shortfall in**
2 **the recovery of required revenue associated with a particular phase of the instant**
3 **franchise should be at the expense of the Company's shareholders for the first five**
4 **years.**

5 A. Even with commitment levels as proposed by the OCA, there is still the potential
6 that going forward EnergyNorth ratepayers will be exposed to rate hikes on account of
7 revenue deficiency emanating from the franchise expansion. It is important that the
8 Company initially bears that risk entirely, to retain an adequate incentive to manage the
9 project cost-effectively. Also, initially bearing the risk in entirety will not only (at least
10 in the near future) protect EnergyNorth's existing customers from having to cross
11 subsidize the off-pipeline-dependent customers, but will also encourage the Company
12 to actively solicit customers for the sake of the off-pipeline based franchise's viability.
13 The OCA believes that the initial period should be five years. The OCA is open to
14 considering other approaches to meet the same objectives as listed above, but it
15 contends that its third recommendation is a reasonable prod to encourage viability of
16 the franchise while it provides adequate protection for existing rate payers.

17 To be clear, it should be understood that even when the protection as
18 recommended above expires, the Commission must remain vigilant in the future about
19 whether the franchise is being run prudently. The expiration of the protection
20 discussed above should not be construed as permitting the Company to impose the
21 burden of imprudent costs on ratepayers.

1 **III. Concluding Remarks**

2 **Q. Do you believe that the franchise's approval will provide benefits to the**
3 **public?**

4 A. Based on the Company's specific proposal, I cannot yet conclusively state that
5 the franchise's approval will provide benefits to the public. To the extent that
6 customers commit to the utility service, it would be reasonable to conclude that they
7 expect to benefit from the utility's gas service enough that they are willing to switch
8 away from their existing heating systems. In essence, the proof of whether the franchise
9 benefits the public lies in demonstrated interest shown by the public for such a utility
10 service. If the Company can secure commitments that assure recovery of full direct cost
11 and the protections as recommended above are in place, the OCA expects that the
12 franchise will not only be beneficial to the public, but will also be a viable proposition
13 going forward.

14 **Q. Does this conclude your testimony?**

15 A. Yes.