



**STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION**

**DG 18-094**

**In the Matter of:  
Northern Utilities, Inc.  
Petition for Franchise Approval in Epping**

**Direct Testimony**

**of**

**Stephen P. Frink  
Director – Gas & Water Division**

**November 15, 2018**

1 **New Hampshire Public Utilities Commission**

2 **Northern Utilities, Inc.**

3  
4 **Petition for Franchise Approval in Epping**

5 **DG 18-094**

6 **Testimony of**  
7 **Stephen P. Frink**

8  
9 **Q. Please state your name, occupation, and business address.**

10 **A.** My name is Stephen P. Frink and I am employed by the New Hampshire Public Utilities  
11 Commission (Commission) as Director of the Gas & Water Division. My business address is  
12 21 S. Fruit Street, Suite 10, Concord, New Hampshire 03301.

13 **Q. Please summarize your educational and professional experience.**

14 **A.** I joined the Commission in 1990 as a member of the Audit Team and worked as a Utility  
15 Analyst and Senior Utility Analyst before becoming the Assistant Finance Director in 1998.  
16 In 2001, Commission operations were restructured and I became the Assistant Director of the  
17 Gas & Water Division, responsible primarily for the administration of the financial aspects of  
18 the regulation of gas utilities. On February 1, 2018, I became Director of the Gas & Water  
19 Division.

20 Prior to joining the Commission, I worked as a Budget/Financial Analyst for the cities  
21 of Austin and Dallas, Texas. I have a Bachelor of Arts and a Master's in Business  
22 Administration from the University of New Hampshire.

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

2 **A.** The purpose of my testimony is to provide Staff's recommendations on whether Northern  
3 Utilities, Inc. (Northern, or the Company) should be granted the franchise to provide natural  
4 gas utility service in Epping. My testimony also examines the methodology and underlying  
5 assumptions used by Northern to evaluate the merits and financial impacts of providing  
6 natural gas utility service to Epping.

7 **Q. Please summarize Staff's findings and recommendations on these issues.**

8 **A.** Staff recommends that the Commission approve the petition for the following reasons:

- 9 1) Northern stated, and has demonstrated through its New Hampshire natural gas  
10 operations, that it has the requisite financial, engineering, and managerial capability to  
11 operate in the proposed service territory;
- 12 2) Northern provides service to the adjacent town of Brentwood;
- 13 3) Results of the Discounted Cash Flow (DCF) analysis, using conservative revenue  
14 projections and reasonable cost estimates, indicate that the proposed expansion will  
15 benefit existing customers through lower rates;
- 16 4) The proposed expansion is expected to serve a significant number of large commercial  
17 customers that are currently using propane and likely to realize substantial energy  
18 savings from converting to natural gas;<sup>1</sup>
- 19 5) William Gannon, representing Epping in the New Hampshire Senate, and Jennifer  
20 Wheeler, President of the Exeter Area Chamber of Commerce, which represents  
21 Epping, filed letters of support for the proposed expansion; and
- 22 6) Expansion of the service territory will not adversely affect existing gas supply  
23 resources.

24 **Q. Please briefly describe the Company's current filing.**

25 **A.** On June 18, 2018, Northern filed a petition with the Commission for approval of franchise  
26 authority to provide natural gas service in Epping, New Hampshire. Northern currently serves  
27 the Town of Brentwood and will be extending an existing main in Brentwood approximately  
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1 See Bates page 30 of Northern's filing (Confidential Testimony of Carroll & Chong (unredacted)) for the number of potential customers along the proposed expansion and expected conversions.

1 4.5 miles to serve commercial developments, including big-box retailers and grocers,  
2 clustered around the intersection of Routes 125 and 101 in Epping. The estimated cost of the  
3 expansion is approximately \$3 million, with construction to commence in 2019 and service to  
4 begin prior to the 2019-2020 heating season. The Company's DCF analysis of the project  
5 results in a positive Net Present Value (NPV) over ten years, meaning the project is expected  
6 to produce a positive return and provide an economic benefit to both existing and future  
7 customers. The NPV figure can be found on Bates page 26, line 4, of the Company's filed  
8 unredacted testimony.

9 **Q. Please describe Staff's review.**

10 **A.** Staff issued three sets of discovery and participated in three technical sessions. At the  
11 technical sessions Staff, Northern, and the Office of the Consumer Advocate discussed  
12 Northern's business and engineering plans related to the proposed expansion. A  
13 representative for the Town of Epping also participated in the first technical session and  
14 issued discovery. Staff reviewed the filing and data responses. In addition, Safety Division  
15 staff drove the proposed route of the line extension and spoke with the New Hampshire  
16 Department of Transportation (NHDOT) about State road plans and permitting requirements  
17 along the proposed route.

18 **Q. Please summarize Staff's findings regarding the financial analysis.**

19 **A.** The results of Northern's financial analysis, which was reviewed and verified by Staff, justify  
20 the proposed Epping expansion. Northern used appropriate factors and a recognized standard  
21 methodology in its economic analysis to determine the costs and benefits to serving Epping  
22 and justifying the proposed expansion, while demonstrating that the incremental system

1 investment required to provide utility service to the new franchise area will be borne by  
2 customers to be served in that area and not subsidized by existing customers in other franchise  
3 areas.

4 **Q. Please explain why Northern's DCF analysis is the appropriate methodology to evaluate**  
5 **the financial merits of the project.**

6 **A.** Northern is required to use a DCF analysis to evaluate the economic feasibility of proposed  
7 line extensions under its approved tariff. DCF is a methodology that the Commission has  
8 found to provide the appropriate framework to evaluate the financial viability of large system  
9 expansions.<sup>2</sup>

10 Northern's DCF analysis compares the estimated distribution revenues to estimated  
11 costs related to the proposed expansion, including incremental costs associated with the main  
12 and service extensions, operations and maintenance expenses, depreciation expenses, and  
13 property and other taxes. These amounts are reflected on an annual basis and result in annual  
14 after-tax cash flows associated with the proposed line extension. The annual cash flows are  
15 then discounted over ten years to a present value at Northern's after-tax weighted cost of  
16 capital and adjusted for inflation to determine the NPV of the project.

17 **Q. Please explain why the revenue projection used in the DCF analysis is conservative?**

18 **A.** The revenue projection is based on the number of potential customers along the proposed line  
19 extension, as well as expected conversions from propane to natural gas. There are a  
20 significant number of large commercial customers currently using propane that can be

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<sup>2</sup> See Order 22,297 issued August 28, 1996, approving Northern's firm gas transportation agreement and expansion of services.

1 expected to convert to natural gas when it becomes available.

2 On April 26, 2018, Waterstone Properties Group, Inc. (Waterstone) filed a letter with  
3 the Commission expressing strong support for Northern's request to provide natural gas  
4 service to Epping. Waterstone owns and operates the Brickyard Square Mall Retail Center  
5 located at the intersection of Routes 101 and 125, and has expressed its preference for natural  
6 gas at its property locations. Waterstone has worked with Northern on several occasions to  
7 supply natural gas to its developments in other franchise areas. There are 26 potential  
8 customers located in the Waterstone development in Epping; all are commercial customers  
9 currently using propane. A typical commercial customer with medium annual usage and high  
10 winter usage (Northern's G-41 customer class) that converts from an existing propane heating  
11 system to natural gas could do so for a one-time cost of approximately \$1,000 and realize  
12 annual saving of over \$20,000 in energy costs. **See Attachment SPF-1 and SPF-2 (Data**  
13 **responses to Staff Tech 1-3 and 1-4).**

14 Northern's revenue projections also include anticipated revenue from a high annual  
15 usage and high winter usage customer (Northern's G-42 customer class) located near the  
16 Waterstone property and currently using propane. Conversion costs for that customer should  
17 be similar to those for a G-41 customer, but the annual savings should be much greater due to  
18 higher fuel consumption. Existing G-42 customers and anticipated Waterstone customers  
19 represent less than 15% of the expected customer growth and over 20% of the projected  
20 annual revenue from the proposed expansion used in the DCF analysis.

21 The high return expected on a relatively small investment is a strong incentive for  
22 commercial customers along the proposed main extension to convert from propane to natural

1 gas and customers once a customer converts that customer can be expected to continue to  
2 require service well beyond the 10 years used in the DCF analysis.

3 **Q. Please explain why Staff considers Northern's cost estimates to be reasonable.**

4 **A.** In addition to Staff's standard review of Northern's methods and data used in preparing cost  
5 estimates for capital projects, Safety Division staff undertook a more rigorous review that  
6 included issuing extensive discovery, contacting the NHDOT, and driving the proposed route.

7 Northern revised the proposed expansion route after the NH Bureau of Rail and  
8 Transit denied permission to install a gas pipeline in the gravel portion of the Rockingham  
9 Recreational Trail corridor. The revised route uses a corridor along Route 27 with a slight  
10 detour along Ladds Lane to avoid additional construction costs that would have been incurred  
11 as a result of the installation of a water/sewer main along Route 27 in 2018. ***See Attachment***  
12 ***SPF-3 (Data responses to Staff DR 1-28, original and revised route maps).***

13 Safety Division staff has reviewed the revised construction plans and finds the revised  
14 route and updated costs to be reasonable.

15 **Q. How does the revised route plan affect Northern's expected capital investment?**

16 **A.** The total incremental capital cost of the project is now estimated to be \$2,969,827, an  
17 increase of \$183,527 over the initial cost estimate of \$2,786,300.

18 **Q. How does the revised route affect the financial analysis?**

19 **A.** The updated cost estimates result in a positive NPV and justify the proposed Epping  
20 expansion. While positive, the NPV amount is 43 percent less than cited in Northern's initial  
21 testimony. The results and explanation of the updated analysis are contained in the  
22 Company's confidential response to Staff Tech 1-2, which Staff intends to mark as an exhibit

1 at the hearing on the merits scheduled for January 8, 2019.

2 **Q. How will the Epping expansion affect Northern's supply resources?**

3 **A.** Serving Epping will have a *de minimis* impact upon the Company's supply resources. Annual  
4 sales along the proposed line extension represent less than one half of one percent of  
5 Northern's projected supply requirements for November 2018 through October 2019. The  
6 potential G-42 customer located in Epping makes up nearly 90% of the estimated additional  
7 annual sales and is expected to be a transportation customer. As such, that customer would  
8 not be purchasing natural gas from Northern and have very little impact on Northern's supply  
9 resources. Sales or transportation customers that are added along the proposed extension  
10 route should not have an adverse effect on supply resources, as Northern's current supply  
11 capacity is sufficient to meet the potential growth along the new line extension.

12 **Q. Is the proposed franchise request consistent with prior Northern franchise requests?**

13 **A.** Yes and no. The last three Northern franchise requests (Kingston and Atkinson in docket DG  
14 18-103 and Brentwood in docket DG 14-154) used the same DCF model and produced either  
15 a zero or a positive NPV. Each of those proposed expansions included at least one existing  
16 anchor customer that had requested service and was making a substantial financial  
17 commitment by way of a contribution in aid of construction. The Epping project is more  
18 speculative in that there are no anchor customers that have committed to taking service and  
19 there is no financial commitment from prospective customers. In spite of the fact that there  
20 are a large number of sizable, existing, prospective customers along the proposed line  
21 extension that are likely to realize very significant return on investment to convert from  
22 propane to natural gas, the projected revenue streams from this expansion are less certain than

1 in Northern's prior franchise requests.

2 **Q. How should the Commission address the higher risk associated with the current**  
3 **franchise request compared to risks associated with Northern's prior franchise**  
4 **requests?**

5 **A.** Staff recommends that Northern be required to file a detailed cost summary within 60 days  
6 after the in-service date of Phase 1 and Phase 2 line extensions, with a variance analysis of  
7 those costs compared to the cost projections used in the updated DCF analysis.

8 In addition, Northern should be required to provide a variance analysis of the DCF  
9 analysis in the attachment to its response to Staff's Tech 1-2 data request, and an updated  
10 analysis that uses actual costs and revenues and updated projections when Northern files its  
11 next general rate case.

12 The three reports will be useful in evaluating Northern's cost and revenue forecasting,  
13 its ability to manage costs, its market planning and execution, and the effectiveness of its DCF  
14 modeling in determining the profitability of the extension project.

15 **Q. Does that conclude your testimony?**

16 **A.** Yes.