

THE STATE OF NEW HAMPSHIRE
BEFORE
THE PUBLIC UTILITIES COMMISSION

DG 13-086

NORTHERN UTILITIES, INC.

DIRECT TESTIMONY OF
JAMES D. SIMPSON

EXHIBIT JDS-1

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1 **I. INTRODUCTION**

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

3 A. My name is James D. Simpson. My business address is 293 Boston Post Road
4 West, Suite 500, Marlborough, Massachusetts 01752. I am a Senior Vice
5 President with Concentric Energy Advisors, Inc. (“Concentric”).

6 **Q. Please describe your relevant work experience.**

7 A. I have over 30 years’ experience in the energy industry in a variety of roles and
8 responsibilities with an overall focus on economics, pricing, forecasting and
9 regulatory matters. I was employed by Bay State Gas Company (“Bay State”) from 1982 until 2000. For much of my time at Bay State, I was responsible for
10 rates and regulatory affairs for Bay State and Northern Utilities, Inc., (hereinafter referred to as “Northern” or the “Company”). I have been with Concentric since
11 2005. My professional qualifications and experience are provided in Schedule
12 JDS-8 of this testimony.

15 **Q. On whose behalf are you testifying?**

16 A. I am testifying on behalf of Northern.

17 **Q. What is the purpose of your testimony?**

18 A. I will describe and explain Northern’s proposed alternative rate plan (“Rate
19 Plan”). The Company’s Rate Plan has been designed to allow for timely recovery
20 of the costs associated with Northern’s non-revenue producing infrastructure
21 replacements and safety and reliability improvements to the Company’s natural
22 gas distribution system, as described in the Testimony of Thomas P. Meissner, Jr.,

1 while limiting the Company's base rate increases for at least a four year period to
2 annual rate adjustments of an estimated \$0.9 million to \$1.0 million per year¹,
3 Schedule JDS-3. In addition to meaningful customer and public safety and
4 reliability benefits that result from the Rate Plan, the annual rate adjustments will
5 provide Northern with a reasonable opportunity to earn a fair return without filing
6 frequent – perhaps annual – general rate cases.

7 In this testimony, I will describe and explain the components of the Company's
8 proposed Rate Plan, which include:

- 9 • A Targeted Infrastructure Replacement Adjustment (“TIRA”) Mechanism,
10 which is a base rate adjustment mechanism that will recover the costs of
11 certain non-revenue producing capital expenditures to replace and improve the
12 Company's distribution system, including the replacement of outdated and
13 aging gas mains, services and other targeted components of the distribution
14 system' between rate cases, subject to a Customer Protection provision that
15 will limit the annual TIRA-related rate increases to 2 percent of total annual
16 revenues;²
- 17 • A Stay-Out Provision, which is a commitment by the Company to file its next
18 general base rate case no earlier than April 1, 2017;
- 19 • An Earnings Sharing Mechanism (“ESM”), which is a mechanism that will
20 return to customers a share of Company earnings in any year that the
21 Company's Return on Equity (“ROE”) exceeds a predetermined upper ESM

¹ In contrast to these projected annual non-revenue producing investment increases of \$0.9 million to \$1.0 million, the Company's last rate case increased rates by \$3.7 million effective May 1, 2012 (DG 11-069, April 24, 2012 at 8). In addition, the requested increase in this proceeding is \$5.2 million.

² The Company's non-revenue producing capital expenditures to replace and improve the Company's distribution system are explained in the Testimony of Thomas P. Meissner.

1 limit and recover from customers a share of Company earnings in any year
2 that ROE falls below a predetermined lower ESM limit;

- 3 • An Off Ramp Provision, which allows Northern to file a general rate case
4 before the end of the Stay-Out term if the Company's ROE is below a
5 predetermined Stay-Out threshold³; and
- 6 • An Exogenous Factors Mechanism, which is a provision to adjust rates for
7 events during the Rate Plan period that are beyond the Company's control and
8 that would have a material effect on Northern's costs.

9 As I will also explain, the proposed Rate Plan will require Northern to operate
10 efficiently and to carefully control costs in order to have a reasonable opportunity
11 to earn a fair return.

12 Lastly, I will explain the reasons and need for the Company's base rates to be
13 more in line with a cost-based rate design that increases fixed charges to recover
14 the predominantly fixed costs associated with gas distribution service.

15 **A. ORGANIZATION OF TESTIMONY**

16 **Q. How is your testimony organized?**

17 A. Section I of my testimony is an introductory section. In Section II of my
18 testimony, I provide an overall explanation for the Company's proposed Rate
19 Plan; I will also provide detailed explanations for each of the components of the
20 Rate Plan: (a) the TIRA Mechanism; (b) the Stay-Out Provision; (c) the ESM; (d)
21 the Off Ramp Provision; and (e) the Exogenous Factor Mechanism. In Section III

³ The Company's proposed Stay Out threshold is 250 basis points less than the allowed ROE in this proceeding.

1 of my testimony, I provide an explanation of the Company's proposed move to
2 increase fixed charges to reflect a cost based rate design.

3 **B. SUMMARY OF PRINCIPAL FINDINGS**

4 **Q. Please summarize your testimony.**

5 A. The Company's Rate Plan is a comprehensive integrated ratemaking approach
6 that will (1) allow the Company to recover the costs of certain non-revenue
7 producing distribution asset replacements; (2) provide the Company with the
8 financial resources to spend on these non-revenue producing projects, while
9 allowing Northern a reasonable opportunity to earn a fair rate of return; (3) ensure
10 that the earliest that Northern may file its next general rate case is April 2017; (4)
11 require the Company to continue its aggressive cost management initiatives and
12 carefully manage its capital spending programs during the term of the Rate Plan;
13 (5) provide for a sharing with customers of any Company earnings that are
14 outside specified limits; and, (6) reflect the benefits of a cost base rate design that
15 will increase fixed charges to recover the predominantly fixed costs of natural gas
16 distribution service.

17 **C. SUPPORTING EXHIBITS**

18 **Q. Please provide a list and description of the exhibits that you have prepared in**
19 **support of your testimony.**

20 A. The exhibits that I have prepared in support of Northern's proposed Rate Plan are
21 as follows:

| | |
|----------------|--|
| Schedule JDS-1 | Actual and Planned Non-Revenue Producing and TIRA Capital Spending |
| Schedule JDS-2 | Planned TIRA Spending and Revenue Requirement |
| Schedule JDS-3 | TIRA Revenue Requirements |
| Schedule JDS-4 | Illustrative Example TIRA Filing Schedules |
| Schedule JDS-5 | Example TIRA rate calculations. |
| Schedule JDS-6 | TIRA Timeline |
| Schedule JDS-7 | Earnings Sharing Mechanism: ROE calculation |
| Schedule JDS-8 | Résumé of James D. Simpson |

1 **II. NORTHERN'S RATE PLAN**

2 **A. INTRODUCTION**

3 **Q. Please describe how Section II, Northern's Rate Plan, is organized.**

4 A. In Section II.B of my testimony, I will: (a) demonstrate that non-traditional capital
5 recovery ratemaking approaches, such as the Company's proposed TIRA, are
6 being used by a growing number of gas distribution companies; (b) explain why
7 gas distribution companies have implemented capital recovery rate adjustment
8 mechanisms to provide for more timely recovery of the costs of additions to
9 infrastructure; (c) explain specifically why Northern is proposing to implement
10 the TIRA Mechanism; and (d) explain the TIRA calculations, timeline, and
11 supporting documentation that the Company will submit with each annual TIRA
12 filing.

13 In Sections II.C through II.F I will describe and explain the remaining features of
14 the Company's proposed Rate Plan: (a) an Earnings Sharing Mechanism
15 ("ESM"), in Section II.C; (b) a commitment to file the next rate case no earlier
16 than April 2017 ("Stay Out"), in Section II.D; (c) a provision ("Off Ramp") that
17 will allow the Company to file a general rate case prior to the end of the Rate Plan

1 term only if the Company's earnings fall below a lower limit, in Section II.E and
2 (d) a provision that, in addition to the TIRA-related rate adjustments, the
3 Company will adjust rates to account for a limited list of events that have material
4 cost impacts ("Exogenous Factors") in Section II.F.

5 In Section III, I will describe the benefits of the Company's proposed rate design.

6 **B. TARGETED INFRASTRUCTURE REPLACEMENT ADJUSTMENT**
7 **MECHANISM**

8 **1. Introduction**

9 **Q. Have other gas distribution companies implemented rate adjustment**
10 **mechanisms, similar to the Company's proposed TIRA, to recover the costs**
11 **of capital spending programs between rate cases?**

12 **A.** Yes, a growing number of gas distribution companies have implemented rate
13 adjustment mechanisms or post-test year rate plans to recover the costs of
14 additions to plant through regular - e.g. annual - adjustments to rates in
15 proceedings that are administratively streamlined, compared to traditional rate
16 case proceedings. These capital recovery adjustment mechanisms are
17 modifications to traditional ratemaking that are being implemented in a growing
18 number of states to address the challenges of financing significant investments in
19 infrastructure that many distribution companies are dealing with.

20 **Q. What evidence have you found that the number of gas distribution**
21 **companies that have implemented capital recovery adjustment mechanisms**
22 **is growing?**

23 **A.** As an indication of the growing use of capital recovery adjustment mechanisms to
24 recover spending on gas utility infrastructure, in 2007 the American Gas

1 Association (“AGA”) reported that 15 natural gas utilities in 11 states were using
2 some form of rate adjustment mechanism to recover the costs of infrastructure
3 replacement projects between rate cases; by 2012, the use of these mechanisms
4 had increased to 48 utilities in 24 states. By December 2012, 65 gas utilities in 29
5 states had implemented a non-traditional ratemaking approach to recover the costs
6 of infrastructure replacements or other categories of plant additions between rate
7 cases.^{4,5}

8 **Q. Can you please explain why a growing number of gas distribution companies**
9 **are implementing capital recovery adjustment mechanisms?**

10 A. In general terms, many gas distribution companies are implementing capital
11 recovery adjustment mechanisms because traditional ratemaking does not provide
12 them with a reasonable opportunity to earn a fair return under their current
13 business and operating conditions, which include, (a) costly, accelerated
14 infrastructure replacement programs that address safety or reliability issues and
15 provide limited revenue growth, and (b) limited revenue growth caused by energy
16 conservation and local, regional and national economic conditions.

17 **Q. Does Northern have “limited revenue growth”?**

18 A. Similar to many gas companies implementing capital recovery adjustment
19 mechanisms, Northern’s infrastructure replacement programs provide limited
20 sources of new revenue, i.e. these programs represent non-growth capital
21 expenditures. However, as explained in the Testimony of Mark H. Collin and

⁴ American Gas Association Infrastructure Cost Recovery Update, June 2012 supplemented by Concentric research.

⁵ Concentric’s research and analysis on the matter is summarized in Section II.B.2.

1 Thomas P. Meissner, as a result of the relatively low saturation rate of natural gas
2 in New Hampshire and the higher cost of competing fuels, the Company has
3 added over 1,600 customers, which is a growth rate of almost 6 percent, in the
4 past four years. Some other gas distribution companies in the northeast have
5 experienced high customer growth rates, similar to Northern in New Hampshire,
6 because of low saturation of gas use, abundant supply of natural gas, and the long
7 term significant price advantage that natural gas has over competing fuels.

8 **Q. Do gas distribution companies, such as Northern in New Hampshire, that are**
9 **experiencing relatively high customer growth but are also committed to**
10 **costly, accelerated infrastructure replacement programs that provide limited**
11 **sources of new revenue, need to implement capital recovery adjustment**
12 **mechanisms?**

13 A. Yes, gas distribution companies with high customer growth rates and
14 infrastructure replacement programs also must implement capital recovery
15 adjustment mechanisms to have a reasonable opportunity to earn a fair return. As
16 explained in Mr. Collin's testimony, during the initial period of customer
17 additions, the front-loaded revenue requirement associated with the investment to
18 serve the new customers will exceed the incremental new customer revenues.⁶
19 Therefore, because Northern's growth in revenues is coming from new added
20 customers, which involves substantial investment in new gas mains and services,
21 Northern's need to implement a capital recovery adjustment mechanism in order
22 to have a reasonable opportunity to earn a fair return is as great as the gas

⁶ In the long run, customer growth is beneficial to existing customers because the Company's fixed costs will be recovered from a larger customer base; there is increasing returns to scale in gas utility cost structures.

1 distribution companies with large infrastructure replacement programs and low
2 customer growth opportunities.

3 **Q. You have explained that capital recovery adjustment mechanisms are**
4 **modifications to traditional ratemaking. Please describe “traditional**
5 **ratemaking.”**

6 A. Traditional ratemaking is based on an analysis of a utility’s projected or historical
7 annual cost of doing business; this analysis determines the level of revenues
8 (“Revenue Requirement”) that would allow the utility a reasonable opportunity to
9 earn a fair rate of return.⁷ The revenue requirement consists of (1) expenses, (2)
10 return of investment in plant (depreciation), (3) return on investment in plant, and
11 (4) taxes. The return on investment component of the revenue requirement
12 accounts for the cost of debt that the utility has issued and the cost of equity,
13 which is determined by analysis to be the return that will allow the utility to
14 maintain credit, attract investment and provide returns that are comparable to like-
15 risk investments.

16 **Q. Why doesn’t traditional ratemaking provide a reasonable opportunity to**
17 **earn a fair return under current business and operating conditions to many**
18 **gas distribution companies?**

19 A. Traditional ratemaking is designed to allow regulated utilities to earn a fair rate of
20 return if the conditions that affect utility costs and revenues during the period that
21 the rates will be charged are generally similar to the conditions that formed the
22 basis for the approved rates. Traditional ratemaking is not likely to produce
23 reasonable results when the conditions that affect utility costs and revenues in the

⁷ Typically, when the rate making process is based on historical data, some adjustments are made to the data to ensure that the rate case cost of service reflects the costs that are likely to be experienced when the new approved rates will take effect.

1 years that the rate case rates will be charged are very different from the conditions
2 that formed the basis for the approved rates.

3 Thus, because gas utilities are facing business and operating conditions –
4 specifically limited revenue growth and / or costly infrastructure replacement
5 programs – that are different from the conditions that formed the basis for the
6 approved rates, traditional ratemaking is not producing reasonable results.

7 **Q. In summary, why have non-traditional capital recovery ratemaking**
8 **approaches been implemented by a growing number of gas distribution**
9 **companies in recent years?**

10 A. In comparison to traditional cost of service / rate of return ratemaking, gas
11 distribution companies, especially companies with large infrastructure
12 replacement programs, have been implementing non-traditional capital recovery
13 ratemaking approaches because these approaches: (1) eliminate the need for
14 frequent and contentious regulatory proceedings; (2) result in more stable prices
15 to customers over the long run; (3) produce more accurate and timely price
16 signals, and (4) improve a distribution company's ability to finance infrastructure
17 replacement projects and result in more stable utility earnings.

18 **2. Gas Distribution Company Implementation of Non-traditional**
19 **Capital Recovery Ratemaking Approaches**

20 **Q. Please provide more detail on the number of gas distribution companies that**
21 **have implemented non-traditional capital recovery ratemaking approaches.**

22 A. A summary of non-traditional capital recovery ratemaking approaches that have
23 been approved by state commissions and implemented by the end of 2012 is
24 provided in Table 1, below. Table 1 indicates that there are three general

categories of non-traditional capital recovery ratemaking approaches, which are differentiated by the characteristics of the gas distribution company's capital projects that are covered: (a) special purpose projects, such as safety-related replacement projects; (b) large projects, such as major reinforcement⁸ or expansion projects, and (c) all capital spending.

Table 1 Gas Distribution Utility Capital Cost Recovery Approaches, 2013

| Category | Types of Eligible Assets | Examples of Eligible Assets | Implementation rate Number of: | |
|--------------------------------------|---|---|-----------------------------------|-------------------------|
| | | | States ⁹ | Companies ¹⁰ |
| Special Purpose Projects (e.g. TIRA) | <ul style="list-style-type: none"> Typically non-revenue generating Targeted Out of the ordinary | <ul style="list-style-type: none"> Cast iron/ bare steel replacement programs Pipeline system integrity Relocating inside gas meters City and state construction projects | 20 | 41 |
| Large Projects | <ul style="list-style-type: none"> Very large Defined, specific projects May include revenue generating projects | <ul style="list-style-type: none"> Specific system expansion / system growth areas Reinforcement projects Automated meter reading devices | 3 | 6 |
| Comprehensive | <ul style="list-style-type: none"> All capital spending | N/A | 10 | 22 |
| Total | | | 28 | 64 |

Table 1 demonstrates that special purpose project capital recovery adjustment mechanisms are the most common non-traditional capital recovery ratemaking

⁸ Distribution reinforcement projects increase the capacity of the distribution system to meet existing and forecast peak (design day) loads.

⁹ The sum of the states that have implemented capital recovery rate adjustment mechanisms, by category, is greater than the 29 total states that have implemented non-traditional capital recovery ratemaking approaches because some states are represented in more than one category. Also, although Iowa and Nebraska gas distribution companies are authorized to implement capital recovery rate adjustment mechanisms by legislation or generic regulatory proceeding, no companies in these states have implemented a capital recovery rate adjustment mechanism at this time.

¹⁰ The sum of the companies that have implemented capital recovery rate adjustment mechanisms, by category, is greater than the 65 total companies that have implemented capital recovery rate adjustment mechanisms because some companies are represented in more than one category.

1 approach; the most common application of special purpose capital recovery
2 adjustment mechanisms is to allow for accelerated replacement of leak-prone
3 distribution assets; these accelerated replacement programs are being driven by
4 public safety considerations.¹¹

5 Large project capital recovery adjustment mechanisms are generally used to
6 recover cost associated with, for example, major main extension projects, system
7 improvement / reinforcement projects, and integrity management initiatives.

8 Comprehensive alternative ratemaking approaches to recover the costs of capital
9 spending generally include (a) multi-year rate plans that account for the
10 distribution company's capital spending plans together with projected expenses¹²,
11 and (b) annual rate adjustments based on audited annual financial results¹³.

12 **Q. Please provide a list of the states that have implemented one of the three**
13 **categories of non-traditional capital recovery ratemaking approaches.**

14 **A** Table 2 lists the states that have implemented non-traditional capital recovery
15 ratemaking approaches, as of December 2012.

16

¹¹ In the 15 states with the highest proportion of leak-prone mains, 10 to 46 percent of the total distribution mains in these states are leak-prone. In the 16 states with the highest proportion of leak-prone services, 10 to 29 percent of total services in these states are leak-prone. "Gas Distribution Infrastructure: Pipeline Replacement and Upgrades, Cost Recovery Issues and Approaches." July 2012 American Gas Foundation

¹² Rate plans have been approved for gas distribution companies in California and New York.

¹³ These annual rate adjustment proceedings, commonly referred to as "revenue stabilization" proceedings, have been approved for gas distribution companies in Alabama, Georgia, Louisiana, Oklahoma, South Carolina, Texas, and Vermont.

1 **Table 2 Gas Distribution Utility Capital Cost Recovery Approaches, 2012**

| | Special Projects | Large projects | Comprehensive | | Special Projects | Large projects | Comprehensive | | Special Projects | Large projects | Comprehensive |
|------------|------------------|----------------|---------------|---------------|------------------|----------------|---------------|----------------|------------------|----------------|---------------|
| Alabama | 1 | 0 | 2 | Louisiana | 0 | 0 | 3 | Ohio | 4 | 0 | 0 |
| Arkansas | 1 | 0 | 0 | Massachusetts | 3 | 0 | 0 | Oklahoma | 0 | 0 | 2 |
| Arizona | 1 | 0 | 0 | Maine | 0 | 0 | 0 | Oregon | 1 | 1 | 0 |
| California | 0 | 0 | 2 | Michigan | 1 | 0 | 0 | Pennsylvania | 1 | 0 | 0 |
| Colorado | 1 | 0 | 0 | Missouri | 4 | 0 | 0 | Rhode Island | 1 | 0 | 0 |
| DC | 0 | 0 | 0 | Mississippi | 0 | 0 | 2 | South Carolina | 0 | 0 | 1 |
| Georgia | 2 | 0 | 1 | Nebraska | 0 | 0 | 0 | Texas | 2 | 0 | 2 |
| Iowa | 0 | 0 | 0 | New Hampshire | 1 | 0 | 0 | Utah | 1 | 0 | 0 |
| Indiana | 2 | 0 | 0 | New Jersey | 0 | 4 | 0 | Virginia | 2 | 0 | 0 |
| Kansas | 3 | 0 | 0 | Nevada | 0 | 1 | 0 | Vermont | 0 | 0 | 1 |
| Kentucky | 5 | 0 | 0 | New York | 4 | 0 | 6 | | | | |

2
 3
 4 **3. Overview of Northern’s Proposed Targeted Infrastructure**

5 **Replacement Adjustment Mechanism**

6 **Q. Please describe the overall purpose of the Company’s proposed TIRA**
 7 **mechanism.**

8 A. The Company has designed the TIRA mechanism to recover the revenue
 9 requirement associated with the following non-revenue producing replacement
 10 projects, which are described and explained in the Testimony of Thomas P.

11 Meissner, Jr:

- 12 1. Replacement of all bare steel, non-cathodically protected (“unprotected”)
 13 coated steel, and cast/wrought iron mains and services.
 14 2. Replacement of outdated or obsolete regulator stations posing a risk to safety
 15 or reliability, including farm tap regulators.
 16 3. Replacement of facilities due to state and municipal highway projects.

1 **Q. Please describe the Company's actual and projected TIRA-related Capital**
2 **spending.**

3 A. I have prepared Schedule JDS-1 to show the Company's actual and projected
4 levels of spending on the non-revenue producing replacement projects that are
5 listed above; the actual and projected spending levels were provided to me by the
6 Company. Schedule JDS-1 demonstrates that for the period 2012 to 2016, the
7 Company's average annual actual and planned spending on non-revenue
8 producing replacement projects is \$6.6 million, which is an increase of 25.5
9 percent over 2011 non-revenue producing replacement spending, \$5.3 million.

10 **Q. Why is the Company proposing this TIRA?**

11 A. The proposed TIRA is necessary to provide sufficient revenues on a timely basis
12 to finance the Company's non-revenue producing replacement programs that I
13 have listed above and to avoid earnings erosion that would prevent the Company
14 from having a reasonable opportunity to earn a fair return and that, conversely,
15 drives the need for frequent base-rate relief. Earnings erosion related to the
16 Company's non-revenue producing programs is a critical consideration because
17 the cost of these programs is a significant portion of Northern's overall planned
18 capital spending. In effect, the TIRA is designed to limit - to slightly more than
19 one year - the regulatory lag that the Company would otherwise experience,
20 which is especially important for a utility, such as Northern, that has undertaken a
21 disproportionately large, and sustained capital expenditure.¹⁴

¹⁴ For the four years, 2013 – 2016, Northern's annual TIRA-eligible spending is projected to average \$6.7 million; projected spending on cast iron and bare steel replacements is 69.3 percent of total projected TIRA-eligible spending.

1 **Q. Please describe the earnings erosion impact of the Company's TIRA –related**
2 **programs on the Company's earnings.**

3 A. To demonstrate the earnings erosion impact of the planned replacement programs,
4 I have prepared Schedule JDS-2, which shows the Company's planned TIRA-
5 related capital spending and the associated TIRA-related revenue requirement.¹⁵
6 The TIRA-related revenue requirement grows from \$0.9 million in 2013 to \$3.9
7 million in 2016. Through 2016, the sum of the annual cumulative TIRA-related
8 revenue requirements is \$9.8 million. Clearly, without the proposed TIRA
9 mechanism, the Company could not commit to a Stay-Out provision through
10 April 2017. The effect of the capital spending plans on the Company's ability to
11 earn its allowed return is also discussed in the Testimony of Mark H. Collin.

12 **4. Description of the Proposed TIRA Mechanism**

13 **Q. What specific costs for annual utility plant additions relating to non-revenue**
14 **producing projects will be eligible for inclusion in the calculation of the**
15 **TIRA mechanism?**

16 A. The Company will include the fully absorbed accounting costs, determined in
17 conformity with U.S. GAAP and FERC accounting guidelines, for annual utility
18 plant additions relating to non-revenue producing projects for: (a) replacement of
19 Cast Iron and Bare Steel Mains and Services; (b) replacement of Farm Tap
20 regulators; and (c) relocation of distribution facilities associated with state and
21 municipal highway projects. Fully absorbed accounting cost of utility plant
22 additions includes materials, direct labor and fringe, and indirect costs. Indirect

¹⁵ The calculation of the TIRA-related revenue requirements is described and explained in Section II.B.4 of my testimony.

1 costs include indirect supervisory and administrative costs, and Engineering and
2 Operations management costs. The Company will account for the utility plant
3 additions included in the TIRA consistently with its accounting for all normal
4 utility plant additions each year, with no special assignment of costs that would
5 deviate from standard accounting procedures. The Company maintains its
6 accounting practices in conformity with its Cost Allocation Manual (“CAM”)
7 which is updated annually. As a result of the procedures documented in the
8 CAM, each and all utility plant additions are assigned a pro-rata portion of
9 indirect costs incurred within the annual period.

10 **Q. Is the Company proposing a Customer Protection provision to limit the bill**
11 **impacts associated with the annual TIRA rate adjustments?**

12 A. Yes, the Company is proposing to limit the annual increase in revenues associated
13 with the TIRA mechanism to 2.0 percent of total revenues for the most recent
14 calendar year. For this calculation, total revenues will be calculated as the sum
15 of: (a) weather normalized delivery revenues; (b) weather normalized Cost of Gas
16 (“COG”) revenues from sales customers; and (c) weather normalized imputed
17 COG revenues from transportation customers. If the TIRA revenue requirement
18 increase in any year exceeds the 2.0 percent Customer Protection cap, the
19 difference will be deferred, with interest at the cost of capital, as determined by
20 the Commission in this rate case proceeding, and will be included in the TIRA-
21 related revenues to be recovered in following years.

1 **Q. Please explain how the TIRA revenue requirement will be calculated.**

2 A. I have prepared Schedule JDS-3 to demonstrate the projected TIRA revenue
3 requirements during the term of the Rate Plan. I have also prepared Schedule
4 JDS-4 to demonstrate the format and content of the TIRA-related schedules that
5 the Company will include with each annual Rate Plan filing, on or before each
6 February 28th during the term of the Rate Plan.

7 Annually, the Company will calculate the incremental and cumulative TIRA
8 revenue requirement associated with TIRA-eligible rate base. The cumulative
9 TIRA revenue requirement will be calculated to include: (a) return and related
10 income taxes on year-end cumulative rate base associated with TIRA-eligible
11 programs; (b) annual depreciation on the cumulative TIRA plant additions; and
12 (c) associated property taxes on cumulative net plant in service based on the
13 composite property tax rate paid by the Company in all towns served in New
14 Hampshire for the most recently completed Calendar Year. Return and related
15 income taxes on rate base will be calculated at the pre-tax return allowed in this
16 proceeding. Cumulative incremental rate base will be calculated with cumulative
17 actual plant additions on TIRA-eligible facilities, including actual removal costs
18 reflected in accumulated depreciation. Accumulated depreciation and deferred
19 tax in rate base will reflect the Company's actual accounting records including
20 actual costs and timing of projects. For illustrative purposes only, in Schedule
21 JDS-4, I have assumed mid-year timing and a 10 percent cost of removal rate (90
22 percent of capital forecast to plant additions and 10 percent of TIRA capital
23 forecast to cost of removal in accumulated depreciation).

1 **Q. Please explain how the Company’s rates will be adjusted to reflect the annual**
2 **TIRA revenue requirement.**

3 A. To determine the Company’s base distribution customer and volumetric (i.e. “per
4 therm”) rates to be effective May 1 of each year of the Rate Plan, the base
5 distribution rates that are in effect just prior to May 1 of that year will be
6 multiplied by a TIRA Rate Adjustment factor. The TIRA Rate Adjustment factor
7 will be calculated by dividing (1) the sum of normalized base distribution
8 revenues plus the annual incremental TIRA revenue requirement (adjusted, if
9 necessary, to reflect the Customer Protection provisions) by (2) normalized base
10 distribution revenues. Normalized base distribution revenues will be calculated
11 by multiplying the base distribution rates that are in effect just prior to May 1 of
12 that year by the billing determinants that are approved in this proceeding.

13 I have prepared Schedule JDS-5 to illustrate how the TIRA Rate Adjustment
14 factor will be calculated and how the Company’s base rates to be effective May 1
15 of each year of the Rate Plan will be calculated.

16 **Q. Please explain why you are proposing to apply the TIRA Rate Adjustment**
17 **factor to adjust Northern’s base distribution rates.**

18 A. As Mr. Normand explains in his testimony, the Company’s proposed rate design,
19 which recovers a greater portion of the costs of providing distribution service
20 through the fixed customer charges, represents a movement towards cost-based
21 distribution rates. The TIRA Rate Adjustment factor will simply maintain the
22 relationship between customer and volumetric rates that will be determined in this
23 rate case.

1 **Q. Please explain the timing of calculations, filings and rate adjustments related**
2 **to the proposed TIRA Mechanism.**

3 A. I have prepared Schedule JDS-6 to illustrate the timing of TIRA calculations,
4 filings and rate adjustments for the first two years of the Rate Plan. Referring to
5 Schedule JDS-6, for the term of the Rate Plan, on or before each February 28th the
6 Company will submit a Rate Plan filing, which will include schedules in support
7 of the proposed rates that reflect the adjustments for the prior calendar year's
8 TIRA-eligible costs.¹⁶ The annual Rate Plan filing will also include supporting
9 schedules associated with the other elements of the Rate Plan, as described in
10 Sections II.C through II.F. After regulatory review, new Rate Plan base rates will
11 go into effect each May 1.¹⁷

12 As explained in detail in the testimony of Thomas P. Meissner, on or before the
13 last day of February of each year, the Company will provide an annual report to
14 the Commission showing actual TIRA activities and costs for the previous
15 calendar year and Northern's planned activities and costs for the current calendar
16 year.

17 **Q. Please describe the TIRA-related analysis and supporting documentation**
18 **that the Company will include in the annual Rate Plan filings.**

19 A. The annual Rate Plan filing will include the following TIRA-related data and
20 analysis: (a) a summary of the costs of TIRA-eligible plant additions for the prior
21 year; (b) calculations in support of the TIRA revenue requirement, in a format

¹⁶ The Company will make annual TIRA filings to recover the costs of TIRA-related plant additions that are recorded for the years 2013 through 2016.

¹⁷ Thus, new base rates will go into effect each May 1 for the years 2014/15 through 2017/18.

1 similar to Schedule JDS-4; and (c) calculations in support of the adjustments to
2 base rates, in a format similar to Schedule JDS-5.

3 **5. Other Matters**

4 **Q. Have you prepared an O&M Offset to be included in the calculation of the**
5 **TIRA revenue increase?**

6 A. No. The Company's Rate Plan includes Northern's commitment to file a general
7 rate case no earlier than April, 2017. During the term of the Rate Plan, the
8 Company's rate increases will be limited to TIRA-related rate adjustments.
9 Therefore, during the term of the Rate Plan, specifically because of the Stay-Out
10 provision, the Company will be required to carefully manage all other cost
11 drivers, including O&M expenses, non-TIRA related capital spending and growth
12 capital spending in order to earn a reasonable return. Northern's Rate Plan
13 provides significant benefits to the Company's customers. Accordingly, including
14 an O&M offset would unfairly shift additional risk to the Company.

15 **C. EARNINGS SHARING MECHANISM**

16 **Q. Please explain the purpose of an Earnings Sharing Mechanism.**

17 A. An ESM is a common element of rate plans, such as Performance Based
18 Ratemaking plans, and rate freezes, which provides incentives to the utility to
19 operate efficiently, but with limits to ensure a fair balancing of risks and
20 opportunities to customers and to the utility.

1 **Q. Please describe the Company's proposed ESM.**

2 A. The proposed ESM includes a deadband of plus or minus 100 basis points around
3 the allowed ROE, and an equal (50 percent each) sharing of (a) the positive
4 difference between actual earnings, adjusted to reflect normal weather, and the
5 allowed earnings plus 100 basis points, or (b) the negative difference between
6 weather normalized actual earnings and the allowed earnings minus 100 basis
7 points.

8 **Q. For purposes of the ESM calculation, please describe how the calculation of**
9 **the Company's ROE, adjusted to reflect normal weather, will be performed.**

10 A. The calculation of actual weather normalized ROE that will be included in the
11 annual Rate Plan filings to be submitted every February 28th will be based on the
12 methodology that is used in Company's calculation of the Return on Common
13 Equity as submitted in the Company's 4th Fiscal Quarter Form F-1 – Rate of
14 Return filed with the NHPUC. The Form F-1 calculation will be modified to
15 exclude any earnings sharing that was reflected in the revenues for that year.

16 I have prepared Schedule JDS-7 to illustrate: (a) how actual weather normalized
17 ROE will be calculated for each calendar year of the Rate Plan; and (b) the
18 calculation of the customer and Company share of earnings if the actual ROE is
19 outside the deadband.

20 **Q. How will rates be adjusted to credit or charge customers for actual earnings**
21 **that are outside the deadband?**

22 A. The rates to all customers will be adjusted by a volumetric ("per therm") rate,
23 which will be calculated by dividing the customer share of earnings outside the

1 deadband by forecasted volumes for the twelve month May through April period
2 that the charge or credit will be in effect.¹⁸ The Company will maintain deferred
3 accounts to record the monthly balances. Any remaining deferred balance at the
4 end of the twelve month period will be transferred to Northern's Residential Low
5 Income Assistance and Regulatory Assessment Costs deferred account.^{19,20}

6 **D. STAY-OUT PROVISION**

7 **Q. Please describe the Company's proposed Stay-Out provision.**

8 A. As I have stated elsewhere in my testimony, the Company will not file a general
9 rate case during the term of the Rate Plan, unless the provisions of the Off Ramp,
10 which are described below, are triggered. This means that, except for the annual
11 TIRA rate adjustments, base distribution rates will not increase for at least four
12 years²¹ from the effective date of the new rates in this proceeding - filed in April
13 2013 - to the effective date of the new rates filed in the next rate case – filed no
14 earlier than April 2017.

¹⁸ The therm forecast will be the forecast of annual firm sales and firm delivery service throughput that is used in the Company's Local Delivery Adjustment Clause filing.

¹⁹ See: Local Delivery Adjustment Clause, Section 6 Residential Low Income Assistance and Regulatory Assistance Costs Allowable for LDAC, currently effective Pages 49 through 52.

²⁰ The Company's proposal to transfer any remaining deferred balance at the end of a twelve month period to the Residential Low Income Assistance and Regulatory Assistance deferred account is intended to ensure that the earnings sharing deferred balance from any year that the earnings sharing provision was triggered is returned to (or recovered from) all firm sales and transportation tariff customers (with the exception of special contract customers who do not pay for service pursuant to a sales or delivery service rate schedule) in a timely manner.

²¹ Subject to the Exogenous Factor provisions.

1 **E. OFF RAMP**

2 **Q. Please describe the Company's Off Ramp proposal.**

3 A. If the Company's actual ROE²² is less than the allowed ROE by more than 250
4 basis points, the Stay-Out provision would no longer apply, and the Company
5 would be allowed to file a general rate case prior to the end of Stay-Out period,
6 April 1, 2017.

7 **F. EXOGENOUS FACTORS**

8 **Q. Please explain the Company's proposal to account for Exogenous Factors**
9 **during the term of the Rate Plan.**

10 A. Exogenous Factors are typically included in rate plans to allow for adjustments to
11 rates for events that: (a) are unforeseen at the start of the rate plan; (b) are largely
12 uncontrollable by management; (c) are not already reflected in base rates or the
13 TIRA adjustments; and (d) have a material effect on earnings. For the purpose of
14 this exogenous factor provision, "material effect on earnings" is defined as any
15 combination of exogenous events that have a combined positive or negative
16 impact on the Company's costs of at least \$100,000.

17 Further, Exogenous Factors will be limited to the following categories: (i)
18 accounting rule changes promulgated by FASB, SEC or the Commission; (ii) Tax
19 law changes by the federal government, state government, or any local
20 jurisdiction having taxing authority; (iii) Costs resulting from other mandated

²² The methodology used to calculate the ROE for the Off Ramp will be the same as the methodology used for the ESM.

1 state, federal, or local governmental programs; or (iv) other events of a similar
2 nature.

3 The Company will include an Exogenous Factor filing on February 28th of each
4 year, as part of the Rate Plan filing.

5 **G. CUSTOMER BENEFITS FROM THE COMPANY'S PROPOSED**
6 **RATE PLAN**

7 **Q. Please describe and explain the benefits of Northern's Rate Plan to its**
8 **customers.**

9 A. The following features of the Rate Plan were specifically included to benefit
10 Northern's customers:

- 11 1. The annual rate increases provided for in Northern's Rate Plan will result in
12 lower costs and rates to customers over the long run due to reduced
13 administrative, regulatory and financing costs as described in the Testimony
14 of Mark H. Collin, greater rate stability to Northern customers, compared to
15 rate increases from general rate cases that would likely be filed as frequently
16 as every year or so. Customers can more readily budget for smaller annual
17 increases than for larger, less frequent increases, even if the cumulative effect
18 of the two alternatives is similar. As a further consideration, general rate
19 cases are not limited to the revenue requirement effect of non-revenue
20 producing replacement programs; rate case increases would also reflect
21 increases in the Company's expenses caused by inflation and the revenue
22 requirement impact of all (not just non-revenue producing) plant additions.

- 1 2. Also, as explained in Section II.B.4, the TIRA Customer Protection provision
2 ensures that the overall customer bill impact from each annual Rate Plan rate
3 adjustment will be capped at 2.0 percent, which further serves to ensure that
4 customer rates will be stable during the Rate Plan term.
- 5 3. Because the Rate Plan rate increases are limited to the costs associated with
6 the Company's non-revenue producing replacement programs, as described in
7 the Testimony of Thomas P. Meissner Jr., Northern will have strong
8 incentives to carefully control its expenses and capital spending in order to
9 earn a fair return. As a result, in the Company's next rate case following the
10 end of the Rate Plan, the Company's cost of service will reflect the cost
11 management that Northern exercised during the term of the Rate Plan, which
12 will result in direct benefits to Northern's customers.

13 **H. RATE PLAN SUMMARY**

14 **Q. Has the Company prepared a Rate Plan tariff?**

- 15 A. Yes. The Company has prepared a Rate Plan tariff, which is included in the
16 separate tab of tariff pages filed in this proceeding. The TIRA section of that
17 tariff provides details related to: (a) the calculation of the TIRA revenue
18 requirement and rate adjustments; (b) the TIRA timeline; (c) the Customer
19 Protection provision, including the Customer Protection deferred account; and (d)
20 required filing exhibits and documentation. The remaining sections of the tariff
21 provide specific details related to: (1) the ESM; (2) Stay-Out; (3) Off Ramps; (4)
22 Exogenous Factors; and (5) required filing exhibits.

1 **III. RATE DESIGN CONSIDERATIONS**

2 **Q. Please summarize the support that Mr. Normand provides in his rate design**
3 **testimony for his proposal to move towards cost-based distribution rates.**

4 A. In his testimony, Mr. Normand explains that the Company's proposal to increase
5 the portion of the distribution revenue requirement that is recovered through fixed
6 monthly customer charges is consistent with the goal of establishing cost based
7 rates because a large portion of the Company's revenue requirement does not vary
8 in the short run.

9 **Q. From your own experience, can you provide any additional support for the**
10 **Company's proposed rate design?**

11 A. Yes, I can. The Company's rate design proposal to increase the portion of the
12 distribution revenue requirement that is recovered through fixed monthly
13 customer charges: (a) aligns the interests of the Company and its customers on
14 energy efficiency matters; (b) reduces the variability of the Company's year-to-
15 year revenues that is caused by variability of weather and the effects of
16 conservation; and (c) creates greater stability in customers' bills and the
17 Company's revenues from month-to-month within a year and from year-to-year
18 over several years.

19 **Q. Please explain how the Company's rate design proposal will reduce the**
20 **variability of the Company's revenues due to weather and conservation.**

21 A. Northern's current rate design recovers 67 percent of total distribution revenues
22 from volumetric charges, which exposes the Company to variability of
23 distribution revenues from (a) variations on weather and (b) declining gas
24 consumption that is caused by customer conservation initiatives.

1 In response to revenue variability associated with declining gas consumption due
2 to conservation initiatives, many gas distribution companies have (a) increased
3 the portion of the distribution revenue requirement that is recovered through fixed
4 monthly customer charges and / or (b) implemented revenue decoupling
5 mechanisms to more closely align revenues with the costs of providing
6 distribution service.

7 **Q. Please explain how the Company's proposed rate design will reduce the**
8 **variability of Customer's bills due to weather on Customers' bills.**

9 A. Northern's proposed rate design is fair, symmetrical, and beneficial to the
10 Company and its customers. The proposed higher customer charges will serve to
11 mitigate the customer bill impacts of a colder than normal winter; most of the
12 increase in customers' bills will be caused by increased Cost of Gas factor
13 ("COG") collections, and a disproportionately small amount of the bill increases
14 will come from increased distribution revenues.²³ Conversely, during warmer
15 than normal winters, most of the decrease in customers' bills would be caused by
16 decreased COG collections. Thus, the Company's proposed rate design would
17 improve the year-to-year stability of customers' bills and the Company's
18 distribution revenues.

²³ If all distribution revenues were recovered in fixed monthly charges, colder than normal weather would have no impact on customers' bills.

1 **Q. Please explain how the Company's proposed rate design will reduce the**
2 **seasonal variability of Customer's bills.**

3 A. The Company's proposed rate design will increase most customers' bills in the
4 summer period, when customer usage is at its lowest levels, and will mitigate
5 customer bill increases in the winter period, when bills are at their highest levels.

6 **IV. SUMMARY AND CONCLUSIONS**

7 **Q. Please summarize Northern's proposed Rate Plan and Rate Design.**

8 A. Northern's proposed Rate Plan is a comprehensive, integrated ratemaking
9 approach that will: (1) allow the Company to make non-revenue producing
10 distribution asset replacements at an accelerated rate; (2) provide the Company
11 with more timely recovery of the costs of these non-revenue producing projects;
12 (3) ensure that Northern will not file its next rate case prior to April 2017; (4)
13 require the Company to continue its aggressive cost management initiatives and
14 carefully manage its capital spending programs during the term of the Rate Plan;
15 (5) share any Company earnings that are outside specified limits between
16 customers and the Company; and (6) reflect the benefits of a cost-based rate
17 design that will increase fixed charges to recover the predominantly fixed costs of
18 natural gas distribution service.

19 The overall effect of the Company's proposed Rate Plan will be to provide
20 Northern with the financial strength to make safety and growth-related
21 investments in infrastructure for the long run benefit of Northern's customers and
22 for the State of New Hampshire. If the separate components of the Rate Plan are
23 substantially altered in the rate case process, the Company faces the possibility of

1 having diminished opportunity to earn a fair return on equity and to finance the
2 planned non-revenue producing projects during the term of the Rate Plan.

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

4 A. Yes, it does.

5