



Earnings Sharing Mechanism

Prepared Direct Testimony of

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On behalf of Gaz Métro Limited Partnership

Presented to the

Régie de l'énergie

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1 **I. INTRODUCTION AND QUALIFICATIONS**

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

3 A. My name is Robert C. Yardley, Jr. and I am a Senior Vice President of Concentric Energy
4 Advisors, Inc. (“Concentric”). My business address is 293 Boston Post Road West, Suite
5 500, Marlborough, MA 01752.

6 Concentric provides regulatory, economic market analysis, financial advisory and
7 management consulting services to energy firms and organizations throughout North
8 America.

9 **Q. Please describe your experience in the energy and utility industries.**

10 A. I have approximately 35 years of experience in the energy industry, having worked as a
11 consultant and executive at energy consulting firms for most of my career. For two of
12 those years, I served as Chairman of the Massachusetts Department of Public Utilities,
13 the agency responsible for regulation of the electricity, natural gas, telecommunications
14 and water industries in the Commonwealth of Massachusetts. I have testified before state
15 regulatory agencies and the Federal Energy Regulatory Commission on ratemaking,
16 regulatory policy, earnings attrition, incentive regulation, integrated resource planning,
17 distribution system planning, and emergency storm response. My qualifications are
18 detailed more fully in the curriculum vitae that is provided as Attachment A.

19 **Q. Have you submitted expert testimony before the Régie de l’énergie (“Régie”) or
20 any other Canadian regulatory agency?**

21 A. Yes. In April 2013, I submitted testimony before the Régie on behalf of Hydro-Québec
22 Distribution (“HQD”) and Hydro-Québec TransÉnergie (“HQT”) in folder R-3842-
23 2013. My testimony presented a recommendation for an Earnings Sharing Mechanism
24 (“ESM”) for HQD and HQT. I also submitted an expert report in January 2013 and
25 subsequently testified before the Alberta Energy Resources Conservation Board on the
26 public interest implications of drilling a natural gas well in close proximity to a natural gas
27 underground storage field (Application No. 1735722).

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

2 A. I am submitting this testimony on behalf of Gaz Métro Limited Partnership (“Gaz
3 Métro” or the “Distributor”)

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

5 A. The purpose of my testimony is to present a recommendation for an ESM for Gaz Métro
6 that is more balanced and represents a meaningful improvement for both Gaz Métro and
7 its customers over the existing ESM. An ESM is a regulatory mechanism that provides
8 for customer sharing of a portion of utility earnings that are either higher or lower than
9 the level of earnings that equates with the authorized return on equity (“ROE”) during a
10 specified period.

11 **Q. Please describe the circumstances that have led to the filing of your testimony?**

12 A. Gaz Métro submitted a 2015 tariff filing, R-3879-2014, on March 14, 2014 that proposed
13 a relatively straightforward annual rate adjustment mechanism accompanied by a proposal
14 to modify the ESM that had been implemented by the Régie in D-2013-106, issued on 15,
15 July 2013 in R-3809-2012. As I shall describe in Section III of my testimony, Gaz
16 Métro’s current ESM provides a limited incentive for Gaz Métro to pursue efficiency
17 gains. The Régie issued a decision on June 13, 2014 declining to consider Gaz Métro’s
18 rate and ESM proposals on procedural grounds. This decision was reversed upon appeal
19 on December 19, leading to the current filing by Gaz Métro.

20 **Q. Is Gaz Métro resubmitting its initial rate and ESM proposals?**

21 A. No. Gaz Métro has modified its rate proposal modestly and its ESM proposal more
22 significantly. The proposal remains a cost-of-service based approach intended to be in
23 place during a transition period before Gaz Métro makes a new incentive ratemaking
24 proposal. Gaz Métro’s modified rate proposal reflects the fact that financial results for
25 2014 are now available and can be used as a “cast-off” point for a three-year tariff
26 proposal to cover the period, 2015-2017. This is a change from Gaz Métro’s March 2014
27 proposal and resolves the need to develop a bottoms-up forecast of Operations &
28 Maintenance (“O&M”) expenses for 2015. As I shall describe later, the reliance on
29 forecasts is a reasonable ratesetting approach that is widely used throughout Canada.
30 However, controversy over the validity of forecast data in Québec has had the

1 unfortunate effect of compromising the determination of a fair and balanced ESM.
2 Hopefully, this modest rate proposal change will allow the Régie and other stakeholders
3 to take a fresh look at the ESM.

4 **Q. Is a change to Gaz Métro's current ESM appropriate?**

5 A. Yes. As I describe in Section III of my testimony, Gaz Métro's current ESM shifts a
6 disproportionate share of the earnings risk to Gaz Métro, relative to the limited upside
7 earnings opportunity. The fact that rates are established based on cost-of-service
8 principles and in place for only a short period adds to this imbalance. I will also present
9 evidence demonstrating that Gaz Métro's current ESM is an outlier among recent ESMs
10 throughout North America. Gaz Métro's March 2014 proposal addressed this imbalance
11 by providing a realistic opportunity for Gaz Métro to benefit from upside earnings and
12 thus, a realistic incentive for the Distributor to pursue sustainable efficiency gains.

13 **Q. Please explain what you mean by Gaz Métro having filed a more significant**
14 **change to its proposed ESM.**

15 A. Gaz Métro has further modified its proposed ESM in its current proposal to accept more
16 of the downside risk and share less in the upside opportunity in the hopes of reaching
17 consensus on a rate/ESM proposal that will allow all stakeholders to move forward with
18 a reasonable three-year resolution of both rates and earnings sharing with a less
19 burdensome regulatory process. Gaz Métro's present proposal fairly balances the risk
20 and earnings retention potential between Gaz Métro and its customers, particularly when
21 considered as part of its combined rate and ESM proposal.

22 **Q. Why is it important to consider the rate and ESM proposals as a package?**

23 A. First, an ESM is a ratemaking tool that should not be considered in isolation, but rather a
24 part of the overall ratemaking approach. Thus, it is appropriate to consider Gaz Métro's
25 rate proposal when assessing its ESM proposal. Second, as I note above, the forecast
26 controversy associated with the calculation of rates is directly related to the ESM, at least
27 in Québec and the change to the rate proposal is relevant to my assessment of Gaz
28 Métro's proposed ESM. Third, I can see a benefit to all stakeholders, but particularly to
29 Gaz Métro's customers, from achieving a three-year tariff proposal that is reasonable.

1 **Q. Please summarize your principal findings and conclusions.**

2 A. My principal conclusion is that Gaz Métro's proposal is a significant improvement over
3 the current tariff because it provides at least some limited rate relief while also improving
4 Gaz Métro's incentive to pursue efficiency gains. The proposal would also avoid the
5 potential need for Gaz Métro to file a detailed cost-of-service rate case each year until
6 such time as a new multi-year incentive rate plan is implemented. All stakeholders would
7 be able to refocus their efforts on other challenges and objectives, including the
8 development of the longer-term incentive rate plan. Making progress toward a longer-
9 term rate plan is important as even Gaz Métro's proposed changes to the ESM may not
10 provide an adequate upside opportunity to incent the Distributor to pursue efficiency
11 improvements that may be difficult to achieve, take years to realize, and/or require a
12 significant up-front investment.

13 **Q. How is the remainder of your testimony organized?**

14 A. The remainder of my testimony is presented in four sections. The next section describes
15 ESMs without regard to Gaz Métro's particular circumstances, including the key
16 parameters that serve to define a particular ESM and the factors that are often considered
17 by regulators when evaluating the appropriateness of an ESM formula. Section III
18 describes particular Gaz Métro circumstances that have a potential bearing on the design
19 of the ESM. Section IV describes the Gaz Métro ESM proposal and presents my
20 assessment in light of the current circumstances. Finally, I present my conclusions and
21 recommendations in Section V.

22 **II. EARNING SHARING MECHANISMS**

23 **Q. What is the primary purpose of an ESM?**

24 A. The primary purpose of an ESM is to share earnings with customers that deviate in a
25 meaningful way (positive and negative) from the level of earnings associated with the
26 authorized ROE. It is probable that revenues, costs and rate base will each deviate from
27 the assumptions that are used as the basis for calculating rates whether the ratemaking
28 approach is based on an historical test year with post-test period adjustments or whether
29 rate calculations are based on a forward-looking test year. The ESM apportions this
30 deviation in earnings between customers and the utility based on a prescribed formula.

1 An ESM helps to safeguard against earnings outcomes that may be unacceptable to either
2 customers (or regulators on their behalf) or to the utility. In this respect, ESMs are a
3 form of variance management. However, rather than focus narrowly on a particular
4 revenue, cost or rate base circumstance that contributes to the variation in earnings as is
5 the case with a variance or deferral account, the ESM focuses on the end result and thus
6 captures all such contributing circumstances in a single measure after any variance and
7 deferral accounts have been reflected. By focusing on the end result, the ESM reduces
8 the regulatory burden associated with a more detailed, and often unreliable, inquiry into
9 the specific circumstances that contributed to earnings variations.

10 **Q. What are some of the reasons why the realized ROE will differ from the**
11 **authorized ROE?**

12 A. The actual ROE will deviate from the authorized ROE for various reasons. For example,
13 sales levels and associated revenues may be higher or lower than reflected in the
14 calculation of rates due to changing economic conditions. Global economic conditions
15 may impact a major regional industry in ways that had not been anticipated. The costs
16 and commissioning of new transmission or distribution facilities may be affected by
17 unanticipated changes in the costs of components or in the length of time required to
18 complete construction. These unanticipated revenue and cost trends will impact the
19 realized ROE to the extent that they are not covered by variance and deferral accounts.
20 There are also opportunities for the utility to influence the level of costs by implementing
21 initiatives that result in more efficient operations, and therefore increase earnings.

22 As I will discuss below, the potential impact on a utility's incentive to pursue operating
23 efficiencies is a particularly important consideration when designing an ESM.

24 **Q. Does the variability of earnings depend on the length of time that rates are in**
25 **effect?**

26 A. It is reasonable to expect that earnings variability will increase as rates remain in effect for
27 a longer period. This will occur because revenues, costs, and rate base – the three basic
28 elements of the ROE calculation – are more likely to deviate, as time progresses, from the
29 values that have been used in the calculation of rates. However, this may not always be

1 the case to the extent that the variations in individual revenue, cost and rate base accounts
2 offset each other.

3 Although ESMs can be designed for a single rate plan year, they are more commonly
4 associated with rates that are expected to be in place for two or more years to serve as a
5 hedge against earnings variability for both customers and the utility. Longer-term rate
6 plans also provide a greater incentive for utilities to pursue operating efficiencies. The
7 ESM provides a means to share a portion of these efficiency gains with customers
8 without waiting for rates to be rebased.

9 ESMs are a common element of multi-year incentive regulation plans. Incentive
10 regulation plans can be quite complex but typically break the linkage between costs and
11 rates after the initial year of the plan, with rates changing after the first year in accordance
12 with an approved formula.

13 **Q. What are the key parameters of an ESM?**

14 A. The ESM begins with the calculation of realized earnings for a preceding twelve-month
15 period. It is specified by two key parameters (1) the size of a “deadband” around the
16 authorized ROE, and (2) the “customer sharing percentage” or the sharing of earnings
17 with customers that applies when realized earnings fall outside of the deadband. The rate
18 plan may also separately include an “off-ramp” requiring that rates be rebased should the
19 ROE fall outside of a specified earnings band.

20 **Q. Please describe the deadband in more detail.**

21 A. The “deadband” is a range around the authorized ROE within which there is no sharing,
22 i.e., the utility absorbs 100% of earnings “shortfalls” and retains 100% of “surplus”
23 earnings. Thus, there is no customer sharing within the deadband. Customer sharing
24 begins when the realized ROE falls outside of the deadband. A common deadband is
25 ± 100 basis points but there are also examples of ESMs with deadbands of ± 150 or 200
26 basis points. There have also been a more limited number of ESMs where there is no
27 deadband and customer sharing begins with the first dollar of earnings either above or
28 below the authorized ROE. For example, Gaz Métro’s existing ESM does not have a
29 deadband.

1 **Q. Why is the deadband an important feature of an ESM?**

2 A. The deadband serves three purposes: (1) it captures the normal ebb and flow of earnings
3 in response to everyday business activities without requiring a change in rates at the end
4 of the year, (2) it provides an incentive for the utility to pursue programmatic initiatives
5 that are designed to achieve operating efficiencies, and (3) it provides an incentive for the
6 utility to manage costs throughout its operations, and not only focus on larger efficiency
7 opportunities. Each of these factors contribute to the evaluation of the size of the
8 deadband. A deadband is particularly important to encourage pursuit of efficiency gains
9 that may require a significant investment, be difficult to achieve and/or take time to
10 develop.

11 **Q. Please describe the customer sharing parameter.**

12 A. The second parameter specifies the degree to which customers will share in earnings that
13 fall either below the lower limit of the deadband (“downside sharing”) or above the upper
14 limit of the deadband (“upside sharing”). Customer sharing percentages of 50% are the
15 most common, although there are also examples with 25% and 75% customer sharing
16 with shareholders receiving the balance. Some ESMs have tiered sharing formulas, with
17 different customer sharing percentages as realized earnings deviate further from the
18 authorized ROE.

19 An ESM with the same customer sharing percentages on the downside and the upside is
20 considered to be a “symmetric” ESM. There are also “asymmetric” ESMs with different
21 customer sharing percentages that apply to the upside and downside.

22 **Q. How are the results of the ESM attributed to customers?**

23 A. The ESM is typically applied to earnings during each pre-defined twelve-month period
24 (often a calendar year or customary financial reporting period) and subject to regulatory
25 review to attribute sharing to customers in a future period. There are examples in which
26 the customer sharing in surplus earnings is reflected by crediting a deferral account
27 balance rather than attributed to customers in the subsequent period.

1 **Q. What factors do regulators consider when evaluating an ESM?**

2 A. Although there are many variations of the ESM formula (e.g., size of the deadband,
3 customer-sharing percentages, tiered sharing, symmetric vs. asymmetric), regulators must
4 ultimately resolve two conflicting objectives of ESMs: (1) a desire to constrain earnings
5 variability, and (2) a desire to provide the utility with an incentive to pursue operating
6 efficiencies.

7 To the extent that constraining earnings variability is of paramount importance, this
8 supports a relatively narrow deadband and greater customer sharing percentages. In
9 contrast, utilities have a weaker incentive to pursue operating efficiencies with an ESM
10 than when they keep 100% of the over/under earnings, all other things being equal,
11 because a portion of the resulting savings is attributed to customers.

12 **Q. Are there ways to moderate this disincentive?**

13 A. Yes. As long as the ESM includes a meaningful opportunity for the utility to retain a
14 portion of efficiency gains, it will encourage the utility to design and implement initiatives
15 to realize these efficiencies. This meaningful opportunity is enhanced if the ESM will be
16 in place for a number of years, as the utility will have an improved incentive to promote
17 efficiency gains that may require an up-front investment, are difficult to obtain, and/or
18 take time to develop. However, where rates are in effect for only a year or two, the ability
19 to achieve efficiency gains will require a broader deadband and/or lower overall customer
20 sharing to overcome the dampened incentives under a short-term rate plan.

21 **Q. Are there other design elements that reveal the tension between these two**
22 **objectives?**

23 A. Tiered sharing formulas can be designed to either increase the percentage of customer
24 sharing as earnings increase or they can incorporate a decreasing customer share as
25 earnings increase. The former approach reflects a desire by regulators to constrain upside
26 earnings as their primary objective; the latter indicates that the regulator is primarily
27 focused on providing an incentive for the utility to aggressively pursue efficiency gains.

1 **Q. Is it helpful to examine the ESMs that have been implemented by other North**
2 **American utilities?**

3 A. It is informative to examine other ESMs because they reveal the variety of mechanisms
4 that have been implemented in other jurisdictions. ESMs are also one of the many
5 factors considered by the financial community when analyzing utilities. In fact, this is a
6 concern with respect to Gaz Métro's existing ESM. However, the fact that another
7 jurisdiction has adopted a particular ESM formula does not imply that this same formula
8 would be appropriate for Gaz Métro. The ESM is only one element of an integrated
9 regulatory and ratemaking construct. Further, many ESMs may be one element of a
10 comprehensive rate plan settlement, and the agreement on the specific ESM formula will
11 reflect tradeoffs that have been arrived at among the parties on any number of terms.

12 **III. RELEVANT GAZ MÉTRO DISTRIBUTION CIRCUMSTANCES**

13 **Q. What Gaz Métro circumstances will you be reviewing in this portion of your**
14 **testimony?**

15 A. I will begin by discussing Gaz Métro's existing ESM, including a comparison to other
16 ESMs throughout North America. This comparison will show that Gaz Métro's ESM is
17 clearly an outlier and provides extremely limited opportunity for Gaz Métro to share in
18 any upside earnings. I will then discuss the regulatory concerns that appear to have
19 influenced Gaz Métro's comparatively restrictive ESM and the longer-term consequences
20 for Gaz Métro, its customers and other stakeholders. The most important obstacle to a
21 balanced ESM appears to have been concern over the validity of forecasts that are relied
22 on to establish rates when there is a forward-looking test year. I will then summarize Gaz
23 Métro's rate proposal in this proceeding and describe the impact that it has on the
24 appropriate ESM including the manner in which it addresses the forecast issue. Finally, I
25 will discuss the earnings experience of Gaz Métro in 2013 and 2014, the most recent
26 period during which the Distributor has been subject to cost-of-service regulation
27 because the 2014 cost-of-service will be the basis for establishing 2015 rates under Gaz
28 Métro's rate proposal.

1 A. Gaz Métro's Existing ESM

2 **Q. Please describe Gaz Métro's existing ESM.**

3 A. Gaz Métro's existing ESM was established in D-2013-106, a tariff filing to establish rates
4 that would take effect after the expiration of its incentive ratemaking plan that had been
5 in effect from 2000 through 2012. Rates were established based on cost-of-service
6 principles and it was anticipated that they would be in effect during a transition period
7 until a new incentive mechanism was implemented. As established in the decision, the
8 existing ESM does not include a deadband and Gaz Métro is responsible for 100% of
9 earnings shortfalls. The Distributor is allowed to retain 50% of any earnings surplus up
10 to the first 50 basis points above the authorized ROE, with 100% of any earnings surplus
11 above the 50 basis point threshold being returned to customers.

12 **Q. How would you characterize Gaz Métro's existing ESM?**

13 A. The existing ESM provides an extraordinarily limited opportunity for Gaz Métro to share
14 in any upside earnings. Gaz Métro's upside is limited to 25 basis points, providing
15 virtually no incentive for Gaz Métro to expend resources in an effort to achieve efficiency
16 gains.

17 **Q. How does Gaz Métro's current ESM compare to ESMs in Canada and the United**
18 **States?**

19 A. Attachment B illustrates how Gaz Métro's ESM compares to other North American
20 ESMs. Gaz Métro's restrictive ESM is a clear outlier among regulatory precedents
21 throughout North America as it provides the most limited opportunity to share in upside
22 earnings as any ESM in Attachment B while it also requires Gaz Métro to absorb 100%
23 of underearnings. In fact, it is the most restrictive ESM that I have ever seen. The ESMs
24 that apply to HQD and HQT, approved by the Régie in D-2014-033 are also relatively
25 restrictive as the Régie applied some of the same rationale as I shall discuss below. The
26 Hydro-Québec ESMs have no deadband and HQD and HQT are required to absorb
27 100% of earnings shortfalls. The Régie approved 50-50 sharing up to the first 100 basis
28 points above the authorized ROE for both HQD and HQT. Earnings above this band
29 are to be shared 75% customers, 25% Hydro-Québec. Thus, HQD and HQT have a
30 greater opportunity to share in the upside than Gaz Métro, even though their ESMs offer
31 weaker incentives than ESMs that have been implemented elsewhere in North America.

1 **Q. How do the Québec precedents compare to recent ESMs in other Canadian**
 2 **provinces?**

3 A. Among recent Canadian ESMs, the 2014 FortisBC decision provides for symmetric 50-50
 4 sharing above and below the authorized ROE as part of a six-year performance-based
 5 ratemaking (“PBR”) plan. The five-year PBR plan approved in 2012 for ATCO Gas and
 6 ATCO Electric do not have an ESM but include a provision whereby ATCO can
 7 carryover a portion of efficiency gains into its next rate plan. Enbridge Gas’ five-year
 8 PBR plan provides for 50-50 sharing of upside earnings as one element in a
 9 comprehensive rate settlement. Like Enbridge, Union Gas’s 5-year rate plan provides for
 10 upside sharing of earnings beyond a 100 basis point deadband, 50-50 sharing above the
 11 deadband up to 100 basis points (or 200 basis points above the authorized ROE), and
 12 90–10 sharing (favoring customers) for earnings in excess of 200 basis points above the
 13 authorized ROE.

14 **Q. How do the Québec precedents compare to ESMs that have been implemented in**
 15 **the United States?**

16 A. Recent United States experience with ESMs is reflected in settlements of rate cases that
 17 are based on cost-of-service principles. The Southwestern Electric Power case has
 18 symmetrical sharing, and the Florida Power & Light case has an off-ramp for the utility at
 19 100 basis points below the authorized ROE. Most of the precedents have 50-50 sharing
 20 on the upside, and many have a second tier with reduced utility sharing percentages that
 21 are at least 25%. The ESMs that are part of comprehensive rate settlements may reflect
 22 tradeoffs among the parties on other aspects of the settlements, but they are still
 23 informative with respect to ESMs because they address uncertainty about future earnings.

24 **Q. Is the fact that Gaz Métro ESM was approved as an element of a cost-of-service**
 25 **tariff filing as opposed to either a multi-year incentive plan or multi-year**
 26 **settlement a relevant consideration?**

27 A. Yes. This is a relevant circumstance when assessing Gaz Métro’s ESM, including the
 28 comparison against the ESMs in Attachment B that are elements in longer-term rate
 29 plans. At the time that Gaz Métro filed its proposed tariff and ESM, it was clearly
 30 considered to be in place during a relatively short transition period until such time as a
 31 new incentive rate plan could be put in place. In fact, the Régie cited the cost-of-service

1 and transition aspects of Gaz Métro's ESM proposal in its decision as support for a
2 relatively simple sharing mechanism.¹

3 It is also instructive to note that one or two-year cost-of-service based rate plans do not
4 typically provide for any sharing of earnings with customers and the utility absorbs 100%
5 of the downside risk and retains all earnings above the authorized ROE until new rates
6 take effect.² This approach recognizes that customers will receive 100% of the benefits
7 of any efficiency gains when rates are rebased in a year or two and provides the utility
8 with at least some incentive, however limited, to pursue such efficiency gains in the
9 interim. The Gaz Métro ESM severely limits this incentive.

10 B. Québec ESM Regulatory Precedent

11 **Q. The relatively recent Québec ESM precedent is clearly an outlier among North**
12 **American ESMs. How does it compare to the ESM that had been in place for Gaz**
13 **Métro during its 2000-2012 incentive rate plan?**

14 A. Gaz Métro's most recent incentive rate plan ESM was applicable from October 2007
15 through September 2012. Although the formula was complex, it essentially provided Gaz
16 Métro with an opportunity to retain up to 50% of overearnings to the extent it is able to
17 forecast efficiency gains in advance, and up to 25% of overearnings that result from after-
18 the-fact efficiency gains. On the downside, Gaz Métro absorbed 50% of shortfalls during
19 its incentive rate plan. However, Gaz Métro had only one year of earnings below the
20 authorized ROE during this period, a result that undoubtedly raised the profile of the
21 ESM issue with the Régie and other stakeholders.

¹ Paragraph [385] in Decision D-2013-106.

² In fact, many longer term COS rate plans do not provide for any earnings sharing although it is not uncommon for a United States utility to file a rate case based on COS principles and reach a settlement agreement with parties after the record has been developed that includes a relatively short rate period (e.g., 3 years), specified interim rate increases, and some sharing of earnings deviations.

1 **Q. What ESM did Gaz Métro propose in its 2013 cost-of-service based tariff filing?**

2 A. Gaz Métro proposed a symmetric ESM with a relatively narrow 50-basis point deadband
3 above and below the authorized ROE. Gas Métro proposed that it would share equally
4 with customers any sharing between 50 and 150 basis points above and below the
5 authorized ROE and that customers would absorb 100% of the earnings surpluses and
6 shortfalls outside of this range.

7 **Q. What reasoning did the Régie appear to apply in the Gaz Métro decision, D-2013-
8 106?**

9 A. In establishing the ESM in Gaz Métro's 2013 tariff filing, the Régie appears to have been
10 motivated by three considerations:

- 11 (1) The anticipated short duration of the transition period and a desire for a relatively
12 simple mechanism during this period (see Paragraphs 381 and 385);
- 13 (2) The historical earnings experience of at least Gaz Métro and perhaps Hydro-Québec
14 as well, although the latter is not explicitly mentioned in the Gaz Métro decision (see
15 Paragraph 380); and
- 16 (3) A belief that the COS ratemaking model to be used during the transition period is less
17 risky than incentive regulation because, according to the Régie, conservative forecasts
18 of revenue requirements (on the high side) and throughput (on the low side) and
19 asymmetric information are "inherent" parts of cost-of-service ratemaking with
20 forecasted test years (see Paragraph 382).

21 In reaching this decision, the Régie appears more concerned about the potential for Gaz
22 Métro to earn above its authorized ROE than in providing the Distributor with an
23 incentive to pursue efficiency gains. Unfortunately, while this may reduce customer rates
24 in the short-term, it harms customers over the long-term.

25 **Q. What is the basis for your opinion?**

26 A. My opinions are based on my review of the Gaz Métro decision (D-2013-106), my
27 subsequent participation in the Hydro-Québec hearings as the witness supporting Hydro-
28 Québec's ESM proposals, and the decision issued in the Hydro-Québec (D-2014-033).
29 While I do not agree that cost-of-service regulation is inherently less risky than incentive
30 regulation, it is clear to me that the Régie is concerned about the accuracy of forecasts
31 that are the starting point for establishing rates in Québec when a forward-looking test
32 year is used.

1 **Q. In your opinion, has the recent earnings experience of Québec utilities**
2 **contributed to this perspective?**

3 A. Yes. The fact that both Gaz Métro and Hydro-Québec have earned in excess of the
4 authorized ROEs in most years over the past decade has likely contributed to the
5 perception of forecast bias by the Régie. This perception exists despite the fact that the
6 level of revenue requirements and sales volumes are determined as part of the rate case
7 process that includes an opportunity for the regulatory agency and other parties to
8 conduct extensive discovery and cross-examine witnesses. The rate case process is
9 intended to produce a level of costs and sales volumes that will produce just and
10 reasonable rates. The process appears to achieve this result in other jurisdictions that rely
11 on a forward test year, as the forecast bias issue receives comparatively little attention.

12 **Q. Is the ESM an appropriate tool to address this forecast concern?**

13 A. No. The ESM is neither intended to address nor is it an appropriate tool to address a
14 forecast bias concern. A much more efficient regulatory solution is to address the
15 perceived forecast bias issue by targeting the underlying causes directly, and allow the
16 ESM to serve its primary purpose and be structured in a way that allows for a more
17 balanced sharing of earnings variances while retaining an incentive to pursue efficiency
18 gains. In jurisdictions that rely on a forward test-year, such as Québec and many other
19 Canadian jurisdictions, this means that every effort must be made throughout the rate
20 case process (the utility filing, subsequent discovery, cross-examination, and the decision)
21 to achieve the matching principle. The ESM is not designed to “fix” forecast concerns.
22 In fact, using the ESM to address concerns with the forecast introduces adverse
23 consequences. I am referring specifically to the dampening impact on the utility incentive
24 to pursue efficiency gains. As what was originally contemplated to be a relatively short
25 transition period extends beyond a year to two or three or even four years, the ESM
26 becomes increasingly problematic for Gaz Métro and also for customers that would
27 otherwise benefit if Gaz Métro had an incentive to pursue sustainable efficiency
28 improvements.

1 **Q. Is it possible to perform an after-the-fact analysis to determine whether earnings**
2 **that deviate from the authorized ROE are attributable to forecast issues or to**
3 **efficiency initiatives?**

4 A. It is virtually impossible to perform a reliable after-the-fact diagnostic to determine the
5 sources of earnings variations, including any that may be attributable to forecast
6 differences. I do not mean to suggest that the utility should not examine earnings
7 variances after the fact. This is a good management practice in order to identify what
8 might be done better. However, these analyses do not have sufficient validity to be used
9 for ratemaking purposes and efforts to adopt such an approach and initiate a formal
10 regulatory proceeding are likely to be burdensome to all parties without a corresponding
11 increase in the confidence in the results.

12 C. Gaz Métro's Revised Rate Proposal

13 **Q. Please summarize Gaz Métro's tariff proposal in this proceeding?**

14 A. Gaz Métro offers a straightforward three-year (calendar years 2015-2017) tariff proposal
15 that addresses the forecast issues associated with Operations & Maintenance expenses.
16 Rather than rely on a forecast of costs for the initial rate year, the Distributor proposes to
17 use the 2014 actual Operations & Maintenance as the starting point, with a one-time
18 \$2.07 million adjustment to account for budgeted 2014 expenses that had not yet been
19 expended. Gaz Métro calculated the 2015 Operations & Maintenance expense by
20 applying the actual Canada Consumer Price Index 12 Months' average of 2.1%. The cost
21 of service will be adjusted in each of the two following years by increasing Operations &
22 Maintenance expense by the forecasted inflation rate. As in the March 2014 filing, any
23 changes in pension obligations will be neutralized.

24 **Q. Will Gaz Métro's 2015-2017 rate calculations be adjusted to reflect factors other**
25 **than Operations & Maintenance expenses?**

26 A. Yes. For example, the rate base, and associated depreciation expense will be adjusted
27 each year to reflect investments that have been made by Gaz Métro and approved by the
28 Régie. Gaz Métro is not proposing any change in the authorized ROE, providing an
29 extra measure of rate stability for customers. Finally, the number of customers and
30 throughput volumes will be updated each year and used to calculate rates in order to
31 maintain consistency with the level of gas supply portfolio costs used to calculate rates.

1 **Q. What aspects of this rate proposal have a bearing on the design of the ESM?**

2 A. There are four aspects of the Gaz Métro tariff proposal that have an impact on the design
3 of the ESM. First, and most importantly, Gaz Métro has eliminated the need to forecast
4 a detailed cost of service. Second, the length of the tariff plan is fixed at three years.
5 Third, the tariff plan is simple and understandable. Fourth, the inflation cap on increases
6 in Operations & Maintenance expenses provides a boundary on upside earnings, and
7 brings the potential for underearnings clearly into play.

8 **Q. What are the specific implications for Gaz Métro's ESM?**

9 A. The use of 2014 Operations & Maintenance expense as the primary driver in establishing
10 the 2015 cost of service removes a major source of controversy from the determination
11 of the ESM and the ESM can now be designed to achieve its intended purpose, to act as
12 an earnings variance tool. The three-year term of the plan provides assurance to the
13 Régie that any cost reductions, other efficiency enhancements, and other changes in
14 factors that impact the rate calculation will be rebased for effect in 2018. Thus, any
15 upside benefits that might accrue to Gaz Métro will be limited to three years (2015, 2016
16 and 2017). In fact, as I have noted, downside earnings are also a distinct possibility.

17 D. Gaz Métro's 2013 and 2014 Earnings

18 **Q. What is the recent earnings experience of Gaz Métro?**

19 A. Gaz Métro's recent earnings have not reflected a trend in the company's ability to earn in
20 excess of its authorized ROE in either of the past two years. In 2013, Gaz Métro's
21 distribution operations, under-earned by \$2.2 million; and in 2014, distribution operations
22 over-earned by \$22.9 million. An overview of those results is presented below:

1

Revenue Requirements (\$000)

	Authorized ³	Actual	Difference
2013			
Revenues	\$ 542,288	\$ 539,443	\$ (2,845)
Costs	542,288	541,637	651
Difference	\$ -	\$ (2,194)	\$ (2,194)
2014			
Revenues	\$ 590,964	\$ 614,181	\$ 23,218
Costs	590,964	591,319	(355)
Difference	\$ -	\$ 22,862	\$ 22,862

2

It is worth noting with respect to the 2013 results, that Gaz Métro had initially requested a revenue requirement of \$547.3 million but that the request was reduced by a \$5 million reduction in Operations & Maintenance expenses.

3

4

5

6 **Q. Why is it relevant to examine Gaz Métro’s recent earnings experience?**

7 A.

I have examined Gaz Métro’s 2013 and 2014 financial results to assess whether any forecast issues might have influenced the earnings results during the initial year of operation under the transition COS ratemaking framework. The prior earnings experience occurred while the Distributor was operating under a long-term incentive regulation plan and is not particularly relevant for these purposes.

8

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12 **Q. Have you examined the potential sources of earnings variances in 2013 and 2014?**

13 A.

Yes, although I will add the caveat that this is an inexact science. My analysis of Gaz Metro’s recent earnings results does not reveal signs of forecast bias or forecast trends in one direction or the other, and are within norms for forecast versus actual differences. The greatest drivers of distribution revenue differences appear to be weather, customer

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³ 2013 revenues as authorized in folder R-3871-2013, and 2014 revenues as authorized in R-3837-2013.

1 growth, industrial load response to commodity price changes, and other economic drivers
2 that are difficult to forecast accurately.

3 **Q. Please describe Gaz Métro's earnings experience in 2013.**

4 A. As shown in the table above, Gaz Métro experienced a loss in 2013 of \$2.2 million. This
5 earnings shortfall was comprised of a revenue shortfall of \$2.8 million that was partially
6 offset by a favorable cost variance of \$0.6 million. On the expense side, Gaz Métro was
7 not able to achieve the Régie's rate case reduction in Operations & Maintenance expense
8 and in fact, fell \$2.5 million short of the across-the-board \$5 million reduction mandated
9 by the Régie. However, the Distributor was able to achieve cost savings elsewhere that
10 produced the \$0.6 million favorable cost variance.

11 On the revenue side, volumes and revenues varied across the various tariff rate classes, in
12 some cases being higher than projected while in other classes they were lower than
13 expected. Gaz Métro realized lower revenues for residential and average commercial
14 customers of \$4.3 million, which appears to be primarily related to lower than expected
15 customer growth. These revenue shortfalls were partially offset by increases in both
16 industrial revenues and interruptible revenues of \$0.6 million and \$0.9 million,
17 respectively, due largely to the increased competitive position of natural gas.

18 In summary, my examination of this data did not reveal any evidence of conservative
19 forecasting bias either with respect to sales or costs, and positive variances in operating
20 expense accounts were largely driven by actions taken by Gaz Métro to forego or defer
21 costs in an effort to comply with the mandated operating expense cap of \$182.7 million.

22 **Q. Please describe Gaz Métro's earnings experience in 2014.**

23 A. Gaz Métro's 2014 revenues were \$ 23.2 million (roughly 4%) higher than projected. This
24 includes an increase of approximately \$15 million that was attributable to a 5% increase in
25 residential and commercial volumes, including some movement of customers among rate
26 classes. A revenue increase of \$2.9 million for industrial customers is attributable
27 primarily to an increase in penalties imposed by Gaz Métro for authorized and
28 unauthorized overruns above established consumption caps. Finally, an adjustment of
29 \$5.3 million was made to "normalize" interruptible revenues to account for lost revenues

1 associated with greater curtailments due to colder-than-normal temperatures (a
2 methodology referred to as “contrepartie de normalisation”).

3 On the expense side, transportation, balancing and distribution costs increased by \$0.4
4 million (or 1%) due primarily to increased throughput on the system associated with
5 higher volumes and colder weather. Operating expenses were also \$0.4 million (or 0.2%)
6 higher than forecast due to the following primary factors: i) a lower than projected
7 expense capitalization rate which had the effect of increasing operating expenses by \$ 0.7
8 million; ii) an offsetting savings in professional and external services of \$1.5 million
9 attributable to weather-related job delays and slower-than-planned program deployments;
10 iii) \$0.6 million increase in revenues realized from external training, and iv) a reduction in
11 budgeted operating expenses of \$3.0 million imposed by the Régie in D-2014-077
12 (Paragraph 291).

13 In summary, the variances incurred by Gaz Métro in its controllable expenses were
14 inconsequential compared to its revenue requirement. The, more significant revenue
15 variances were mainly driven by uncontrollable events such as weather and customer
16 behavior. There is no indication of forecast bias in my analysis of Gaz Métro’s 2014
17 earnings results.

18 **Q. What do these results suggest with respect to the likelihood that Gaz Métro will**
19 **experience an earnings surplus or shortfall in 2015?**

20 A. Very little. The proposed rate plan may yield an earnings surplus if Gaz Métro is able to
21 achieve operating efficiencies or if the growth in throughput exceeds the growth in the
22 cost of service. It is also possible that Gaz Métro will realize an earnings shortfall. In
23 fact, the purpose of the ESM is to allocate this earnings variance, without focusing too
24 much on the particular source of the variance.

25 **Q. How might the recent earnings experience of Gaz Métro affect the design of an**
26 **ESM?**

27 A. First, it is fair to say that earnings surpluses tend to draw a lot more attention than
28 earnings shortfalls as long as earnings are not so low as to threaten the financial health of
29 the utility. Historical earnings surpluses are not necessarily a concern, particularly if they

1 result from efficiency improvements or factors that are clearly beyond Gaz Métro's
2 control. It is therefore essential that the ESM continues to promote efficiency gains that
3 will benefit customers and Gaz Métro, both in the near term and into the future.

4 E. Conclusions with Respect to Gaz Métro Circumstances

5 **Q. Please summarize your conclusions with respect to the circumstances that the**
6 **Régie should consider when reviewing Gaz Métro's proposed ESM.**

7 A. Gaz Métro's proposal must be judged in concert with its tariff proposal. Ideally, if the
8 Régie determines that Gaz Métro has proposed a ratemaking approach that satisfactorily
9 addresses the forecast issue, then it can take a step back and consider the ESM on its own
10 merits, focusing on how to appropriately balance its role as a variance management tool
11 against the potential adverse impacts on providing Gaz Métro with an incentive to pursue
12 efficiency gains. It is particularly important that the Régie not separate its consideration
13 of the rate proposal from the ESM as they are an integrated ratemaking package that will
14 establish the incentives for Gaz Métro to operate over the next three years.

15 Most significantly, it is important not to lose sight of the fact that the current ESM serves
16 neither Gaz Métro nor its customers well. There is no incentive under the current ESM
17 for Gaz Métro to pursue efficiency projects particularly if they require an initial capital
18 investment, take years to produce savings, are at all difficult to achieve, or have any risk
19 of yielding the intended benefits. This is an unfortunate and undesirable outcome from
20 the perspective of both customers and Gaz Métro.

21 **Q. What is the potential impact of the current rate filing practice on the design of an**
22 **ESM for Gaz Métro?**

23 A. Annual rate filings based on cost-of-service principles act as a disincentive to pursue
24 efficiency gains. In addition, there is a benefit to Gaz Métro, its customers, and to all
25 stakeholders from a three-year period, characterized by relatively straightforward rate
26 calculations which serve to minimize burdensome rate proceedings that have tended to
27 focus on Operations & Maintenance expense levels in the past. Gaz Métro would be able
28 to focus on the business of serving customers and take a three-year view as it considers
29 efficiency programs. All stakeholders, including the Régie, would be able to focus their
30 efforts on the development of a longer-term incentive rate plan that will promote longer-

1 term regulatory objectives. A reasonable ESM, when combined with Gaz Métro's rate
2 proposal, would contribute to more predictable rates and earnings outlooks for the next
3 three years.

4 **Q. Is a three-year rate plan long enough to allow Gaz Métro to focus on sustainable**
5 **efficiency improvements?**

6 A. Three years is at the low end of the range that will provide an incentive to consider
7 harder-to-achieve efficiency improvements. Nonetheless, it is a significant improvement
8 over the current circumstance in which Gaz Métro's incentives are severely limited and
9 customers face the potential of more detailed rate filings. If there is an overriding theme,
10 it is that everyone (customers, Gaz Métro, and other stakeholders) is able to take a
11 longer-term focus with respect to the challenges and opportunities facing the natural gas
12 business. Regrettably, the current rate program has effectively shifted the focus to short-
13 term earnings. Due recognition to the value of efficiency gains is essential in order to
14 achieve a more balanced ESM in the future with an opportunity to retain a meaningful
15 proportion of upside earnings. The fact that sustainable efficiency gains would benefit
16 customers over many years seems have been overwhelmed by the current focus on short
17 term earnings.

18 While I have paid a lot of attention in this testimony to achieving sustainable efficiency
19 improvements, this concept extends to all aspects of the natural gas distribution business
20 including new customer services and tariffs. Managing a utility is a much more
21 comprehensive responsibility than simply focusing on cost savings.

22 **IV. GAZ MÉTRO'S ESM PROPOSAL**

23 **Q. Please summarize Gaz Métro's ESM proposal.**

24 A. Gaz Métro's ESM proposal is presented in the Distributor's application. The proposal
25 calls for a 50-50 sharing of the first 100 basis points of earnings above the authorized
26 ROE, with 75% (customer) – (25% Distributor) sharing for earnings that are more than
27 100 basis points above the authorized ROE. There is a 100-point deadband on the
28 downside, with Gaz Métro absorbing any earnings shortfall within that range. Should
29 earnings fall below this level, customers will assume 100% of the remaining shortfall.

1 **Q. How does this compare to Gaz Métro’s existing ESM?**

2 A. This proposal is an improvement over the existing ESM because it provides a meaningful
3 opportunity for Gaz Métro to share in the upside earnings and thus, provides a legitimate
4 incentive for the Distributor to pursue sustainable efficiency gains. While an upside
5 deadband of 50 or 100 basis points would have improved the incentive to pursue hard-to-
6 achieve efficiency improvements, it is appropriate under the circumstances to take this
7 first, more modest step. The improvement relative to the existing ESM is supported by
8 Gaz Métro’s tariff proposal that reflects meaningful progress on the forecast issue.

9 **Q. Do you endorse Gaz Métro’s ESM proposal?**

10 A. Yes. In doing so, I believe that it is important for all stakeholders that Gaz Métro move
11 forward from the current ESM as soon as possible. More significant movement on the
12 upside, including a deadband, might have been preferred but there is a larger perspective
13 in play here. I am referring to the movement toward a three-year rate plan and a
14 reasonable ESM as being worthy of the support of all parties. The Gaz Métro proposal
15 considered in its entirety (the rate proposal and ESM proposal) has the potential to
16 resolve the “transition” from one incentive regulatory mechanism to the next mechanism
17 and allow Gaz Métro to focus on running its business for the next three years without
18 detailed annual tariff proceedings that are distracting to Gaz Métro and burdensome for
19 all stakeholders.

20 **Q. Why is it important for Gaz Métro’s ESM proposal to provide a meaningful
21 incentive to pursue sustainable efficiency gains?**

22 A. It is possible that a COS ratesetting approach will be in place for at least three more years.
23 This places heightened importance on modifying the ESM to be a more balanced and
24 reasonable mechanism. The alternative is to forego a meaningful incentive for Gaz
25 Métro to pursue sustainable efficiency gains for the next three years, an outcome that
26 serves neither customers nor Gaz Métro’s interests.

27 **Q. Please comment on Gaz Métro’s proposed deadband.**

28 A. Gaz Métro will absorb 100% of the downside risk within the deadband under its
29 proposal. However, it is appropriate to place an outer band on this risk to protect Gaz
30 Métro from extraordinary and unacceptable outcomes. Gaz Métro’s proposed 100 basis

1 point “deadband” achieves this objective, while also achieving a fair and reasonable
2 balance when considered along with Gaz Métro’s upside earnings opportunity.

3 **Q. Are customers and Gaz Métro protected from unacceptable outcomes under this**
4 **proposal?**

5 A. Yes. Customers are protected by sharing in 50% of earnings up to 100 basis points, and
6 75% of earnings in excess of 100 basis points above the authorized ROE. The fact that
7 Distributor sharing will no longer be capped as it is under the current ESM will also
8 benefit customers as it provides an incentive for Gaz Métro to pursue all potential
9 efficiency opportunities. Gaz Métro is also protected from unacceptable outcomes by the
10 100-basis downside deadband. Finally, both customers and Gaz Métro are provided with
11 some protection against unacceptable outcomes by the reasonably short three-year
12 duration of the proposal.

13 **Q. Is it conceivable that Gaz Métro will earn less than its authorized ROE?**

14 A. Yes. The tariff proposal locks in relatively modest annual increases in Operations &
15 Maintenance expenses limited to the rate of inflation but without any consideration of the
16 customer evolution. It is certainly conceivable that Gaz Métro will face earnings pressure
17 from Operations & Maintenance expense increases that exceed the inflation rate and
18 from other circumstances that affect either the cost of doing business or its margin
19 revenues.

20 **Q. Will Gaz Métro’s proposal close the gap between its ESM and other ESMs in**
21 **Canada and North America?**

22 A. Yes. A more reasonable and balanced ESM will send a favorable signal to the investment
23 community. The limited opportunity to retain a meaningful portion of upside earnings as
24 compared to its peers should be of concern for all parties. In addition, it represents
25 substantial progress with respect to the forecast of Operations & Maintenance expenses.

26 **V. CONCLUSIONS**

27 **Q. Please summarize your perspectives with respect to Gaz Métro’s ESM proposal.**

28 A. The overall goal of the ESM is to provide a viable opportunity for both customers and
29 Gaz Métro to benefit from efficiency gains as soon as possible, particularly if the

1 alternative is a continuation of the status quo until a new incentive ratemaking approach
2 is implemented.

3 Ideally, the new ESM will reflect a more appropriate balance between customers and
4 shareholders and provide a meaningful incentive for Gaz Métro to pursue operating
5 efficiencies that will benefit both shareholders and customers over the long run. Gaz
6 Métro's existing ESM serves neither customers nor Gaz Métro well and is clearly outside
7 the range of ESMs throughout North America. Implementation of the proposed ESM is
8 an appropriate step to take at this time and will benefit all stakeholders. While the
9 proposed ESM offers weaker incentives than ESMs that have been implemented
10 elsewhere in North America, Gaz Métro has further modified its current proposal relative
11 to its March 2014 proposal to accept more of the downside risk and share less in the
12 upside opportunity in the hopes of reaching consensus on a rate/ESM proposal that will
13 allow all stakeholders to move forward with a reasonable three-year resolution of both
14 rates and earnings sharing with a less burdensome regulatory process.

15 **Q. How will customers benefit from Gaz Métro's tariff and ESM proposals?**

16 A. Customers should be clear winners from this proposal. They will benefit in the near-term
17 from stable rates with limited increases. They will benefit in the intermediate-term from
18 the incentive that Gaz Métro will once again have to pursue efficiency gains. They will
19 benefit in the longer-term from an improved regulatory environment, a financially stable
20 Distributor, the pursuit of sustainable efficiency improvements, and the increased ability
21 of Gaz Métro focus on serving its customers.

22 **Q. Does this conclude your prepared direct testimony?**

23 A. Yes, it does.

Robert C. Yardley, Jr.
Senior Vice President

Mr. Yardley has been an advisor to private and public organizations in the energy industry on regulatory, public policy, and strategic issues for 35 years. During that time, he has served as Chairman of the Massachusetts Department of Public Utilities for two years and has been active in public policy matters as a speaker, facilitator, and expert witness. As Chairman, Mr. Yardley regulated the electricity, natural gas, water, telecommunications and the transportation industries in Massachusetts. He has substantial executive leadership experience in the energy consulting industry. Trained as an economist with strong analytical skills, Mr. Yardley has an in-depth understanding of the competitive challenges facing regulated and unregulated energy firms as well as the policy challenges facing government agencies responsible for overseeing the restructuring of the energy industry, including the “Utility of the Future” concepts.

AREAS OF STRENGTH

1. **Regulatory Advisory:** expert testimony, case strategy, filing, witness training, regulatory environment assessment, stakeholder relations, collaborative design and leadership, independent investigations, witness training.
2. **Expert Testimony and Reports:** regulatory policy, cost of service and rate design, incentive regulation, earnings attrition, earnings sharing mechanisms, electric resource planning, distribution system planning, emergency response, economic development, utility innovation models, M&A savings treatment, FERC pipeline regulation, and consolidated tax treatment.
3. **Team Leadership/Project Management:** merger integration, due diligence, unbundling implementation, pilot program design and implementation, strategic planning, collaborative design and leadership, meeting planning & facilitation services.

CONSULTING AND LEADERSHIP EXPERIENCE

Regulatory Advisory Services

General advisory, client team leadership/case management, and expert testimony in generic policy setting cases and litigation of proposals initiated by company filings. Frequently called upon to provide advisory services to assist clients in presenting an effective case before a regulatory agency and in improving their relations with regulators and other outside stakeholders. Developed program for facilitated stakeholder discussions on emerging issues in the natural gas industry for a southeastern LDC designed to improve regulatory relations. Provided witness training to a large southeastern electric utility. Have also provided advice to the Ontario Energy Board on regulatory approaches to ensure compliance in a more competitive marketplace.

- Utility of the Future: advising an important group of participants in the ongoing New York REV proceeding. Development of a tariff assessment and strategy for a mid-western electric utility. Team member for a Massachusetts utility’s Grid Modernization Plan.
- Ratemaking and Tariff Design: Expert testimony on cost-of-service, rate design, and the role of competition before the FERC and several state regulatory commissions. Expert testimony on earnings sharing mechanisms for a 2013 Hydro-Québec case. Recently completed a report for the

ATTACHMENT A
RÉSUMÉ OF ROBERT C. YARDLEY, JR.

American Gas Foundation examining ratemaking approaches to address accelerated investments by US natural gas distribution companies to enhance the integrity of their distribution networks. Co-author of a 2010 Power Advisory LLC report for the Ontario Energy Board on the pricing of OPG's regulated generation. Development of a model for the Ontario Energy Board to estimate the rate impacts of expansion of provincial networks to incorporate renewable energy projects. Co-author of a Power Advisory LLC report and testifying witness on the appropriate charge determinants for purposes of establishing transmission rates for Hydro One. Team member and advisor to Columbia Gas of Massachusetts for preparation of 2009 decoupling proposal and testimony. Facilitated a meeting among corporate regulatory, company leadership, expert witnesses and regulatory counsel to develop the case strategy for this Columbia Gas of Massachusetts filing. Provided expert testimony on behalf of Unifil Electric and Connecticut Light and Power on earnings attrition.

- Resource Planning –Advisor to OG&E on the development of their resource planning process and on several subsequent resource plans and resource approval filings. Facilitation of several OG&E stakeholder meetings. Preparation of Integrated Resource Plans for electric and natural gas distribution companies as well as advisory services related to specific contracting decisions, including oversight of portfolio optimization modeling efforts. Contributor to the development of a long-term energy plan for the state of Maryland, focusing on energy efficiency programs. Preparation of RFPs for demand-side and supply-side resources. Preparation of an assessment of the costs and benefits of an aggressive DSM commitment for an eastern state. Served as an advisor to the OEB on development of a standard methodology for measuring the system benefits of distributed generation.
- Performance Based Ratemaking – Co-authored a report on the potential application of incentive ratemaking to the regulated generation assets of Ontario Power Generation. Expert testimony on behalf of Southern Connecticut Gas Company and Energy East in a rate proceeding. Expert testimony provided for Wisconsin Gas in support of a “GNPD-X” proposal; advisor to Bay State Gas Company, which negotiated and filed a settlement implementing a PBR rate proposal with service quality measures. Preparation of Initial and Reply Comments on behalf of Bay State Gas Company in a Massachusetts generic policy proceeding on Incentive Regulation. Advisory services provided to two LDCs, which were considering filing a Gas Cost Incentive Mechanism proposal.
- Merger & Acquisition – Mr. Yardley worked with Unifil’s executive team to lead and manage the integration of Northern Utilities, a gas distribution company that it had acquired from NiSource. Mr. Yardley was a member of the leadership team that planned for the integration of approximately 50 functional areas and the execution of these plans by functional teams. The integration affects almost every area of a utility business including customer service, accounting and finance, corporate communications, distribution field operations, gas supply and control, engineering and operations, corporate functions and infrastructure. Other experience includes preparation of expert report on merger synergies for a large multi-state LDC. Expert opinion on the treatment of merger-related savings in a large commercial litigation matter. Advisor and leader of due diligence teams on two potential utility acquisitions in 2001 and 2002. Led US Market and Regulatory Intelligence effort on behalf of a European Utility. Expert witness in commercial litigation involving a failed merger. Advisor to NiSource on regulatory matters related to its offer to acquire Columbia Energy. As a member of the regulatory approval advisory team, drafted the testimony of Bay State Gas Company’s policy witness in three state jurisdictions for approval of its merger with NiSource. Regulatory advisor to the team supporting the regulatory approval efforts of Southern Union Gas Company for their northeastern LDC acquisitions.
- Utility Performance Assessment: Principal author and expert witness with respect to a “self-assessment” of Unifil’s response to a 2008 Ice Storm.

- Consolidated Tax Treatment: Advisor to a Texas utility seeking legislation to change the treatment of affiliate tax losses in the establishment of regulated utility rates. Preparation of regulatory policy testimony on the treatment of consolidated tax losses for a Midwestern electric utility.
- International and Other – Advisor to the Zambia Energy Regulation Board.

Wholesale Energy Market Services

Advisory services related to emerging competitive wholesale markets and the valuation of formerly regulated assets in these markets.

- Wholesale Electricity Markets – Submitted expert reports in Federal District Court related to actions by the states of Maryland and New Jersey to develop new generation. Submitted a 2012 report to the Public Service Commission on the need for generation in SWMAAC on behalf of a North American power development company.
- Electric Generation Asset Valuation - Asset valuation services provided on behalf of both sellers and buyers for property tax valuation, asset bids, and asset sale purposes. These analyses employ the fair market value approach, which produces an estimate of asset value based on the use of the facilities to generate electricity for sale in the regional market and include an assessment of operating revenue risk factors. Member of an advisory team that evaluated the investment merit of the generation assets divested by Boston Edison. Advisor to Bay State Gas Company on the sale of a cogeneration and small power production facility.
- Electric Asset Competitive Solicitations – Recently assisted a large US developer in preparation of a bid into a 2012 Maryland RFP. Advisor to Oklahoma Gas & Electric for its bid into a neighboring utility's RFP for base load capacity. The EPC contract was a major component of the bid. Preparation of testimony for recovery of approximately \$1B rate base addition.
- Electric Transmission Markets – Represented the Massachusetts Division of Energy Resources in discussions with NEPOOL and the New England state regulatory commissions to develop the Independent System Operator proposal filed by NEPOOL with the FERC on December 31, 1996.
- Natural Gas Wholesale Markets – Expert testimony on the public interest concerns raised by drilling wells in close proximity to an underground natural gas storage field. Expert witness in several FERC regulatory proceedings on behalf of LDC shippers. Preparation of market power study for storage developer. Advisor and prospective expert witness (civil litigation settled) to Fleet National Bank on the value of LNG assets in a restructured natural gas industry.

Retail Energy Market Services

Litigation support, pilot program design, collaborative leadership, and implementation team project management services.

- Policy Development – Contributing to the development of changes in the retail energy markets in New York as part of the REV proceeding. Development of a policy statement on the regulation of CNG. Led the executive team at a Northeast electric utility through a strategic planning exercise that examined alternative “second-stage” retail market structures. Organized and led collaborative efforts to design one of the most aggressive residential pilot programs in the country on behalf of Bay State Gas in 1996 and 1997. Organized and led the facilitation of a collaborative effort to offer choice to all of Bay State’s customers in 1998. Led the Bay State litigation team and served as a witness in the Massachusetts generic natural gas unbundling policy proceeding.

- Competitive Market Services - Completed a business plan for the formation of a retail energy marketing affiliate, including the identification and assistance in the negotiation of partnership relationships. Provided market intelligence services to firms that are considering competing in the northeast energy market. Advisor on regulatory matters to a team representing a group of industrial customers seeking to obtain electricity on more competitive terms and conditions.
- Retail Choice Implementation – Provided project management services to an internal Bay State team responsible for implementing systems and processes to provide customer choice to pilot customers. Developed a comprehensive Integrated Unbundling Plan to address all implementation and policy advocacy issues related to the introduction of customer choice and then worked closely with a client director to oversee the effort for the first year.

Collaborative Leadership

Design, leadership and facilitation of collaborative efforts sponsored by utilities and government agencies.

- Working with a group of participants to provide consolidated comments in the New York REV proceeding.
- Co-led the 2004/05 Massachusetts Distributed Generation Collaborative, to satisfy directives set by the Massachusetts Department of Telecommunications and Energy.
- Facilitated multi-party discussions on the restructuring of the electric utility industry in New Hampshire on behalf of the New Hampshire Public Utilities Commission.
- Facilitated off-site discussions among leaders of organizations as part of long-term strategic planning initiatives.
- Led three Bay State Gas collaborative efforts over a two-year period to develop pilot and comprehensive programs to introduce customer choice.
- Participated as an advisor to a Wisconsin Public Service Commission collaborative addressing low-income issues related to customer choice

Strategic Planning

Working closely with senior executives, leadership of internal teams to perform long-term or next-year strategic planning exercises.

- Development of a strategy to impact economic development on behalf of a Northeast LDC.
- Facilitation of a Canadian Electricity Association workshop as an input to a long-term strategic plan.
- Co-leadership of an internal team at Brooklyn Union charged with developing long-term (10 years) visions of the energy industry, the characteristics of firms likely to succeed in a radically restructured service delivery environment, and the development of a specific strategic and tactical response.
- Leadership of an internal team at Commonwealth Electric Company to develop a long-term strategic plan.
- Participated on a consulting team that developed a capital investment allocation model for a southeastern LDC.
- Work with senior executives, leadership of internal teams to perform long-term or next-year strategic planning exercises at two northeast LDCs.
- Facilitated discussions between and LDC and an electric distribution company to identify opportunities to work jointly and realize synergies.

Other Advisory Services

- Design of an economic development model to estimate the impact of a regional facility to store spent nuclear fuel.

PUBLIC SERVICE

As Chairman of the Massachusetts Department of Public Utilities, Mr. Yardley managed a staff of 150 individuals responsible for regulating all investor-owned electric, natural gas, telecommunications and water utilities. Represented the Department's relationships with the Governor's office, state legislature, press, regulatory and industrial organizations and other stakeholder groups. Served on the National Association of Regulatory Commissioners (NARUC) Committee on Electricity; served as President of the New England Conference of Public Utility Commissioners; and served as Co-Chair of the New England Governors' Conference Power Planning Committee. In addition to these duties, Mr. Yardley was responsible for the following initiatives:

- Electric – Implemented Integrated Resource Planning Regulations to correspond with the emerging competitiveness of the generation sector of the industry, including rationalizing the evaluation and implementation of conservation and load management programs. Approved several economic development rate proposals, with conditions to protect the interests of all customers. Active in the region and in discussions with the FERC Commissioners on the role of regional transmission arrangements in a competitive industry, the need to provide access on fair terms to all users, and the shared jurisdiction on this and other electric industry restructuring matters.
- Natural Gas – Led stakeholder discussions on the impact of Order 636 on the Department's regulation of local distribution utilities. Established and applied new standards of review for gas supply contracts consistent with the restructuring of the industry. Approved alternative firms service contract arrangements and changed cost allocation precedents to remove subsidies inherent in existing rate designs to set the stage for competitive environment.
- Water – Regulator during the period when distribution companies were doubling and tripling their asset base in order to comply with stringent federally-mandated safe drinking water requirements.
- Environment – Active participant in an inter-agency Clean Air Act Compliance task force and in regional discussions to advocate the development of a supra-regional NOx emissions credit reduction trading market.
- Telecommunications – Issued several landmark decisions including orders directing NYNEX to provide competitors with access to its central offices (collocation) and to its street conduits. Approved an alternative form of regulation for AT&T, and established the lowest rates in the country for ISDN service.

PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (March 2012 – Present)

Senior Vice President

Independent Consultant (2005 – 2012)

Executive Advisor to Concentric Energy Advisors, Power Advisory LLC and Levitan & Associates, Inc.

Navigant Consulting, Inc. (2000 – 2004)

Senior Managing Director, Executive Managing Director and leader of the firm’s Energy Practice

Waterstone Group (1996 – 1999)

Founder

Massachusetts Department of Telecommunications and Energy (1991 – 1992)

Chairman

Reed Consulting Group

Co-Founder (1988 – 1990)

Executive Vice President (1993-1995)

R. J. Rudden Associates (1984 – 1988)

Stone & Webster Management Consultants (1980 – 1984)

EDUCATION

B.A., Georgetown University, Economics, 1976

ABD, Boston College, Economics: All course work completed with comprehensive written exams in Econometrics, Monetary Theory and International Trade. Did not complete dissertation.

EXPERT TESTIMONY (STATE COMMISSIONS AND FERC)

Regulatory Policy

Utility Earnings Attrition

Performance Based Regulation

Cost of Service and Rate Design

Earnings Sharing Mechanisms

FERC Pipeline Regulation

Distribution System Planning

Emergency Response

M&A Savings Treatment

Consolidated Tax Treatment

PUBLICATIONS/PRESENTATIONS

- “Stimulating Innovation: An Alignment of Interests?”, presented to a meeting of the IESO Ontario Smart Grid Consortium, December 10, 2014.
- “The Integrated Grid: Back to the Future”, presented at the 2014 NECPUC Annual Symposium, June 16, 2014
- “Stimulating Innovation: An Alignment of Interests?”, presented to a meeting of the Canadian Gas Association and Canadian Electricity Association, November 28, 2013.
- “Emergency Response: The Storm after the Storm”, presented at the 2013 Mid-America Regulatory Conference, June 10, 2013.
- “Natural Gas Infrastructure: Opportunities and Challenges”, C2ES Conference, October 10, 2012.

ATTACHMENT A
RÉSUMÉ OF ROBERT C. YARDLEY, JR.

- “Competition in Electric Markets – Lessons Learned and Future Challenges”, presented at CAMPUT, Halifax, Nova Scotia, May 10, 2004.
- “Impact of Regulatory Uncertainty in the Stability & Growth of the Power Industry”, Panel Participant at Power Industry Forum, May 8, 2003
- “Current Regulatory Issues”, presented to the New England Gas Association, November 20, 2003
- “Retail Competition Update”, presented to the American Public Gas Association, August 20, 2002
- “Transformation of Northeast Energy Markets”, April 4, 2000
- “Examining the Effects of National Energy Policy on Electric Markets”, presented at Power 2001, October 31, 2001
- “Energy Industry Drivers, Implications and Strategic Responses”, presented at the Connecticut Energy Corporation 1999 Senior Officers Planning Session, April 13, 1999.
- “The Challenge and Potential of Information Management in a Deregulated Market”, presented jointly with Cambridge Technology Partners to the 1998 Energy Conference of the New England Gas Association, March 19, 1998.
- “Energy Industry Restructuring: The Role of Pilot Programs”, presented to The 27th Annual Wichita Program, Appraisal for Ad Valorem Taxation, August 5, 1997.
- “Unbundling: Supplier Choice for Residential Customers”, presented to the American Gas Association Rate Committee Meeting, April 1, 1996.
- “Electric Industry Restructuring: Lessons from the Gas Industry”, presented to the National HydroPower Association Annual Conference, March 20, 1996
- “Unbundling – Facts and Figures”, presented to the NARUC Gas Committee Meetings, February 27, 1996.
- “The Effect of Gas Restructuring on LDC Resource Planning: Lessons for the Electric Industry”, presented to the New England Conference of Public Utility Commissioners, June 13, 1995.
- “Unbundling Services, Unbundling Rates”, presented to the New England Gas Association 1994 Rates School.
- “Alternatives to Traditional Ratemaking Proceedings”, presented at a Public Utility Regulation Conference sponsored by the New Hampshire Bar Association, December 8, 1993.
- “Utility Kickers for NUG Purchases”, presented to The 3rd Annual Northeast Power Market Conference”, May 23, 1993.
- “Environmental Externalities: A Utility Regulator’s Perspective”, presented to the 104th Annual Convention and Regulatory Symposium, National Association of Regulatory Utility Commissioners, November 16, 1992.
- “The Role of Regional Planning”, presented at the Forum on New England’s Energy Future, May 7, 1992.
- Speech on electricity transmission policy in New England, before a conference in Crystal City in 1992
- “The Clean Air Act and Utility Regulation: The Challenge of the 1990s”, presented to The Clean Air Marketplace Conference, April 23, 1992

AVAILABLE UPON REQUEST

Extensive client and project listings, and specific references.

ATTACHMENT A
EXPERT TESTIMONY OF ROBERT C. YARDLEY, JR.

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Alberta Energy Resources Conservation Board				
CrossAlta Gas Storage & Services LTD., TransCanada Pipelines Limited, TransCanada Energy LTD.	2013	Kallisto Energy Corp.	Application No. 1735722	Public Interest Standard as applied to the drilling of an oil well proximate to an underground storage field.
Connecticut Department of Public Utility Control				
Southern Connecticut Gas Company	1999	Southern Connecticut Gas Company Rate Case	99-04-18	PBR and service quality plan
Connecticut Light and Power Company	2007	Connecticut Light and Power Company Rate Case	07-07-01	Distribution system planning, reliability, earnings attrition
Federal District Court				
Competitive Power Ventures	2013	PPL, EnergyPlus, et. al. v. Nazarian, et. al.	U.S. Dist. Ct. for the District of Maryland No. 12-cv-1286 (MJG)	History of industry regulation, state regulatory actions - authorized or required by state law - affecting the supply of or demand for wholesale electricity within PJM.
Competitive Power Ventures	2013	PPL EnergyPlus, LLC, et. al. v. Robert M. Hanna, et. al.	U.S. Dist. Ct. for the District of New Jersey No. 3:11-cv-754 (PGS-DEA)	
Federal Energy Regulatory Commission				
Southwest Gas Corporation	1989	Northwest Pipeline Corporation Rate Case	RP88-47	Rate design including seasonal and IT rates, rate design policy statement, pipeline flows rate

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EXPERT TESTIMONY OF ROBERT C. YARDLEY, JR.

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
East of California LDCs	1989	El Paso Natural Gas Company Rate Case	RP88-44	Cost of service, cost classification and allocation, Mcf-mile study, rate design policy statement, rate design proposals
Western Gas Interstate Company	1990	Western Gas Interstate Company Rate Case	RP89-179	Rate design, cost allocation
City of Springfield, MO	1990	Williams Natural Gas Company Rate Case	RP89-183	Rate design, including Dth-mile study and zone boundaries
Southwest Gas Corporation and Washington Water Power	1993	Northwest Pipeline Corporation Rate Case	RP93-5	Rate mitigation due to adoption of SFV rate design, billing determinants, IT rate design, rolled-in rate treatment of expansion capacity
Southwest Gas Corporation	1993	Paiute Pipeline Company Rate Case	RP93-6	Rate mitigation due to adoption of SFV rate design
Wisconsin LDCs	1995	ANR Pipeline Company Rate Case	RP94-43	Order 636 implementation, ANR's bifurcated market environment, cost of service including affiliate allocations, cost allocation, rate design, discount adjustment, rolled-in rate treatment, billing determinants, reclassification of storage gas

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EXPERT TESTIMONY OF ROBERT C. YARDLEY, JR.

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Pacific Northwest Shippers Group (Washington & Oregon LDCs)	2007	Gas Transmission Northwest Corporation Rate Case	RP06-4007	The shifting of costs and risks associated with heavily discounted and undersubscribed capacity; market conditions and the dependence of the LDC clients on GTN; billing determinants; rate treatment for a major expansion project
Maryland Public Service Commission				
Competitive Power Ventures	2012	Maryland Public Service Commission – Inquiry regarding the need for new generation	Case No. 9214	Resource Planning, Demand Response, Need for Capacity in Maryland and SWMAAC
Massachusetts Department of Public Utilities				
Fitchburg Gas & Electric Company	2009	Fitchburg Gas & Electric Company	09-01-A	Storm emergency response
New Hampshire Public Utilities Commission				
Unitil Energy Systems, Inc.	2005	Unitil Energy Systems, Inc. Rate Case	DE-05-178	Earnings attrition
Ontario Energy Board				
Hydro One, Inc.	2010	Hydro One, Inc. Rate Case	EB-2010-0002	Transmission rate design
Régie de l'énergie				
Hydro-Québec	2013	Hydro-Québec	R-3842-2013	Earnings Sharing Mechanism

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Texas Public Utility Commission				
Southern Public Service Company	2007	Southern Public Service Company Rate Case	32766	Rate treatment of consolidated taxes

Earnings Sharing Mechanisms - Canadian and U.S. Utilities
Canadian Utilities

Jurisdiction	Utility	Year	Proceeding	Term	Earnings Sharing Mechanism	Rate Setting Approach
					(Sharing expressed as "Customer - Distributor")	
Alberta	ATCO Gas, ATCO Electric	2012	Distribution Performance-Based Ratemaking Plan Proceeding ID No. 566	5 Years	Sharing: No ESM. Other: ATCO Electric and ATCO Gas were allowed efficiency carryover mechanisms "ECMs" - A post PBR add-on to approved ROE equal to one half of the difference between average ROE achieved over term of Plan and average approved ROE over term of Plan (providing the difference is positive), multiplied by 50%, to a maximum of 0.5%. ROE bonus applies for 2 years after end of PBR Plan.	Performance Based Regulatory Plan - Price Cap (Electric Utilities)/ Revenue Cap (Gas Utilities)
British Columbia	Fortis BC	2014	Multi-Year Performance-Based Ratemaking Plan Order # G-138-14	6 Years 2014-2019	Sharing: Symmetric sharing 50-50.	Performance Based Regulatory Plan - Revenue Cap
Ontario	Enbridge Gas	2014	Multi-Year Performance-Based Ratemaking Plan (Settled) EB-2014-0276	5 Years 2014-2018	Sharing: Over-earnings will be shared 50-50 between ratepayers and shareholders, underearnings borne entirely by shareholders.	Incentive Regulation - Custom IR based on 5 year forecast
Ontario	Union Gas Limited	2013	Multi-Year Incentive Regulation Mechanism (Settled) EB-2013- 0202	5 Years 2014-2018	Deadband: None, asymmetrical ESM Sharing: Excess earnings above Board-approved ROE between 100 basis points and 200 basis points shared 50-50. Excess earnings more than 200 basis points over the approved ROE shared 90-10.	Incentive Regulation - Custom IR based on 5 year forecast

Earnings Sharing Mechanisms - Canadian and U.S. Utilities
Canadian Utilities

Jurisdiction	Utility	Year	Proceeding	Term	Earnings Sharing Mechanism	Rate Setting Approach
					(Sharing expressed as "Customer - Distributor")	
Quebec	Gaz Métro	2012	R-3809-2012	None Specified	Deadband: None Sharing: 50-50 for the first 50 basis points above the authorized ROE, zero sharing above that level.	Cost-of-Service
Quebec	Hydro-Québec	2013	R-3842-2013	None Specified	Deadband: None Sharing: 50-50 of the first 100 basis points above the authorized ROE. 75-25 sharing over 100 basis points.	Cost-of-Service

Earnings Sharing Mechanisms - Canadian and U.S. Utilities
U.S. Utilities

Jurisdiction	Utility	Year	Proceeding	Term	Earnings Sharing Mechanism	Rate Setting Approach
					(Sharing expressed as "Customer - Distributor")	
Colorado	Public Service Company of Colorado (Electric)	2012	Rate Case (Multi-Year Rate Path Settlement) D-11AL-947E	3 Years	Deadband: None, asymmetrical ESM. Sharing: 60-40 sharing for +20 basis points above 10%; 50-50 for next 30 basis points; 100-0 for ROE > 10.5%	Cost-of-Service - three annual rate increases specified. Multi-year plan provides incentives.
Connecticut	Connecticut Natural Gas	2014	Rate Case D-13-06-08	None Specified	Sharing: 50-50 sharing above the authorized ROE. Other: ESM implemented as a "pilot program" until CNG's next rate case.	Cost-of-Service with a tracker for pipeline replacement costs
Connecticut	United Illuminating	2013	Rate Case D-13-01-19	2 Years	Sharing: 50-50 sharing above the authorized ROE. Other: Customer share to be credited against storm cost regulatory asset.	Cost-of-Service

Earnings Sharing Mechanisms - Canadian and U.S. Utilities
U.S. Utilities

Jurisdiction	Utility	Year	Proceeding	Term	Earnings Sharing Mechanism	Rate Setting Approach
					(Sharing expressed as "Customer - Distributor")	
Florida	Florida Power & Light	2012	Rate Case (Settlement) D-120015-EI	4 Years	Deadband: +/- 100 basis point deadband outside of which any party can petition for relief. Rate plan terminates if relief is granted. Sharing: Generation portfolio savings sharing: 1st 36M to customers; next \$10M to FPL; up to \$75M: 30-70, next 25M: 40-60; >100M: 50-50	Annual Cost-of-Service increases with incentives and sharing tied to optimization of generation assets with tiered sharing of savings.
Georgia	Georgia Power (Electric)	2013	Rate Case (Settled) Docket 36989	3 Years 2014-2016	Deadband: 10%-12%, the Company will not file a general rate case unless its calendar year retail earnings are projected to be less than 1 0.00% ROE. Any retail earnings above 12.00% ROE will be shared. Sharing: 2/3 - 1/3	Alternative Rate Plan Prior to 2015 and 2016 Rate Adjustments, Company shall make compliance filings of updated tariffs.
Louisiana	Southwestern Electric Power	2013	Formula Rate Plan Extension (Settled) D-U-32220	4 Years	Deadband: +/- 50 basis point deadband. Sharing: 60-40 symmetrical sharing outside of the deadband.	Formula Rate Plan based on cost-of-service

Earnings Sharing Mechanisms - Canadian and U.S. Utilities
U.S. Utilities

Jurisdiction	Utility	Year	Proceeding	Term	Earnings Sharing Mechanism	Rate Setting Approach
					(Sharing expressed as "Customer - Distributor")	
New Hampshire	Unitil Electric	2011	Rate Case (Settlement) D-DE 10-055	Up to 5 Years	Sharing: No sharing up to 10% ROE; 75-25 sharing above 10%	Specified annual Cost of Service-based increases
New York	Niagara Mohawk	2013	Rate Case (Settlement) D-12-E-0201	3 Years	Deadband: None Sharing: 50-50 sharing 1st 100 basis points above authorized ROE; 75-25 next 100 basis points; 90-10 above 11.3% ROE	Multi-year Cost-of-Service that reflects productivity gains - a form of incentive regulation
North Dakota	Montana-Dakota Utilities	2011	Rate Case (Settlement) C-PU-10-124		Sharing: 50-50 sharing above the authorized ROE.	Cost-of-Service

Earnings Sharing Mechanisms - Canadian and U.S. Utilities
U.S. Utilities

Jurisdiction	Utility	Year	Proceeding	Term	Earnings Sharing Mechanism	Rate Setting Approach
					(Sharing expressed as "Customer - Distributor")	
Rhode Island	National Grid (Electric and Gas)	2013	Rate Case (Settlement) D-4323	None Specified	Sharing: 50-50 sharing 1st 100 basis points; 75-25 sharing above that level.	Cost-of-Service
Virginia	Appalachian Power Company	2014	Bi-Biennial Rate Review C-PUE-2014-00026	2 Years	Sharing: 60-40 if more than 50 basis points above authorized ROE. Other: Statutory requirement to increase ROE if it falls 50 basis points below the existing authorized return for combined generation and distribution services.	Cost-of-Service + 50 Basis Point incentive for attaining Renewable Portfolio Standard Goal
Washington	Puget Sound Energy	2013	Alternative Rate Plan D-UE-130137	3 to 4 Years	Sharing: 50-50 sharing above the authorized return on rate base.	PBR with fixed annual escalation factors