

SECTION 6.0

Expert Evidence from Black & Veatch

1 **Introduction**

2 Black & Veatch Canada Company (Black & Veatch) was requested by EGNB to review and evaluate the
3 proposed change to its current System Expansion Portfolio (SEP) Test and its variance account proposal
4 to accommodate and track differences in the budgeted funding level of its marketing incentive programs
5 compared to the actual amounts spent by EGNB. The requested review and evaluation was conducted by
6 Black & Veatch to determine if each of EGNB’s proposals is a reasonable regulatory solution to address
7 the needs and objectives identified by EGNB and whether the Board should approve EGNB’s proposals
8 for implementation. To undertake this effort, Black & Veatch reviewed EGNB’s two regulatory
9 proposals, the past regulatory decisions of the Board related to the issues addressed by EGNB’s
10 proposals, the historical activities of EGNB to connect new customers to its gas distribution system, and
11 the system expansion activities of other gas and electric utilities in Canada and the U.S.

12 Black & Veatch’s review and evaluation is discussed below and first provides an industry context for why
13 gas distribution utilities conduct system expansion and extension tests¹ and then describes:

- 14 (1) The regulatory reporting requirements for a utility’s system expansion activities;
15 (2) The challenges inherent in a gas utility’s process of connecting new customers to its gas
16 distribution system and how those challenges can impact the retrospective results of the utility’s
17 system expansion test applied on a total portfolio basis;
18 (3) The nature of the proposed change to EGNB’s current SEP Test;
19 (4) The purpose and structure of EGNB’s variance account proposal and the widespread acceptance
20 and use of this regulatory concept in the utility industry; and
21 (5) Black & Veatch’s recommendations to the Board concerning the appropriateness of EGNB’s
22 regulatory proposals.

23 **EGNB’s Proposed Change to its Current SEP Test**

24 **An Industry Context for Conducting System Expansion Tests**

25 To provide an industry context for EGNB’s proposal, it is important to understand why utility regulators
26 require gas and electric distribution utilities to conduct system expansion tests for connecting new
27 customers to their distribution systems and to periodically report the results of these system expansion
28 activities to the regulator. One fundamental purpose of a system expansion test is to demonstrate to
29 regulators, through periodic reporting on a total portfolio basis, that the utility’s system expansion

¹ The terms “expansion” and “extension” are both used in North America to describe the types of economic tests utilized by utilities to evaluate the financial benefit of connecting new customers to a utility’s distribution system. For purposes of this discussion, the term “expansion” will be used in recognition of its inclusion in the naming of the SEP Test approved by the Board for EGNB.

1 activities are reflective of rational economic decisions made by the utility in connecting new customers to
2 its distribution system.

3 The roles and attributes of a reasonable system expansion policy and related practices are to:

- 4 (1) Evaluate the profitability of system expansion projects to determine if the projects are financially
5 viable and to ensure fair treatment among the utility's new customers;
- 6 (2) Determine if the utility's existing customers are subsidizing the addition of new customers to the
7 utility's distribution system;
- 8 (3) Determine if a customer contribution is required to fund a portion of the project costs, and to
9 quantify the amount of the customer's contribution; and
- 10 (4) Provide the utility's management team with the flexibility (e.g., through its governance process)
11 to actively pursue and finalize new customer opportunities in a manner that recognizes
12 management's specific knowledge of the energy marketplace.

13 In general terms, these system expansion tests are based on an economic comparison of the utility's
14 capital-related investment costs incurred to expand its distribution system to connect new customers and
15 the incremental revenues generated by these new customers.² If the incremental revenues exceed the
16 incremental costs, the utility can conclude that the capital investment is economically justified to connect
17 these new customers to the distribution system. Finally, any additional incremental revenues generated by
18 new customers (and a greater level of sales volumes) that are economically justified³ can help the utility
19 in recovering its other fixed costs through base rates.

20 **Regulatory Reporting Requirements for a Utility's System Expansion Activities**

21 Based on Black & Veatch's experience in the utility industry, there are a variety of methods utilized by
22 regulators in North America to examine how the utility's total portfolio of system expansion projects is
23 meeting these above-stated purposes and attributes on an ongoing basis. Most of the gas utilities in North
24 America have some level of reporting responsibility to their respective regulatory commissions and the
25 annual review process adopted by the Board for examining the economic effectiveness of EGNB
26 connecting new customers on a total portfolio basis is an example of this type of retrospective regulatory
27 review.⁴ As with most regulatory processes and practices, the variety of methods used in other
28 jurisdictions reflect the unique circumstances of the utilities operating in those jurisdictions, the history of

² Based on the utility's current rates and contributions in aid of construction (CIAC) by new customers, if applicable.

³ For EGNB, the incremental revenues considered to be additional would be those that generate a SEP Test result above 1.04.

⁴ Filed as part of EGNB's annual Review of Regulatory Financial Statements.

1 regulatory involvement in a utility's system expansion activities and, at times, the political will and social
2 preferences for ensuring natural gas is available in underserved and unserved areas of the jurisdiction.
3 Below are a few examples of other methods utilized by gas utilities in Canada for this portfolio review.

- 4 • In Québec, Énergir provides a five-year historical review to report its system expansion activities
5 to the utility regulator, the Régie de l'énergie.
- 6 • In Ontario, both Union Gas Limited and Enbridge Gas Distribution are required to report on their
7 system expansion activities so that the Ontario Energy Board (OEB) can review the economics of
8 the projects they have undertaken.
- 9 • FortisBC is required to periodically (currently every 5-7 years) perform a Rate Impact Analysis
10 (using a multi-year approach) on its main extension test and file it with the British Columbia
11 Utilities Commission.

12 Likewise, most U.S. gas utilities are required to report on their system expansion policies, often reporting
13 on aspects such as how many customers are added, how many of them pay a CIAC, and how accurate the
14 inputs that go into the economic or revenue tests have been over time. In contrast to the general
15 regulatory approach to this issue in Canada, U.S. regulators provide gas utilities with a relatively high
16 degree of managerial flexibility and discretion to make economically supportable business decisions on
17 adding new customers to their existing gas and electric systems. To this end, U.S. regulators tend to
18 scrutinize more closely and require more detail when a gas utility's plans to connect new customers to the
19 existing distribution system involves a major system expansion requiring significant capital investment
20 and a greater number of new customers to be served.

21 The overall conclusion that can be drawn from these other regulatory reporting processes is two-fold: (1)
22 there are methods similar to the Board's use of the SEP Test for EGNB to review a utility's portfolio of
23 system expansion projects; and (2) these methods vary in their specific implementation, frequency, and
24 scope.

25 **Challenges Inherent in a Utility's Process of Connecting New Customers to its Gas System**

26 A gas utility's actual experience of connecting new customers to its gas distribution system can vary from
27 its planned process and related activities for a variety of reasons. One of the most frequent reasons is the
28 creation of a time lag of varying length between the time the utility incurs capital costs to connect new
29 customers and when these customers initiate gas service and achieve full use of their gas consuming
30 equipment. When this occurs, an inherent mismatch is created between the incremental capital
31 investment incurred by the utility to connect the new customers associated with a specific system
32 expansion project and the incremental revenues which are eventually generated by these customers. This

1 mismatch can materially skew the economics of the utility’s planned system expansion when the
2 incremental capital costs and revenues are examined within too narrow a snapshot of time which cannot
3 properly capture the extended period required by certain new customers to initiate gas service. If this
4 occurs, the additional revenues expected from the new customers will be understated, which creates the
5 perception that there are insufficient revenues to fund the utility’s additional capital investments and that
6 the utility’s original decision to expand its distribution system was not economically justified. If a longer
7 historical timeframe is utilized to compare the incremental capital costs and the full level of incremental
8 revenues upon which the utility had decided to undertake the system expansion project, the true
9 economics supporting the project will become evident.

10 The addition of new utility customers can occur over an extended amount of time for a variety of reasons
11 that are out of the control of the utility. These reasons include: (1) unforeseen changes in the overall
12 economic conditions in the utility’s service area which can slow economic development; (2) the process
13 of finalizing a utility service contract with the new customer may not necessarily be coincident with the
14 initiation of gas service by the customer due to delays in the customer’s business plans; (3) the
15 development process for the eventual full occupancy of industrial parks can often take a longer amount of
16 time compared to the shorter timeframe often necessary to complete individual customer connections; and
17 (4) the delivered price of natural gas being less advantageous compared to the prevailing prices of
18 alternative energy options. For the gas utility, the revenue requirement authorized by the regulator can
19 affect the level of spending for marketing-related activities and the availability of financial incentives to
20 help support the choice of natural gas. This outcome can negatively impact the level of incremental
21 revenues realized from new customers compared to the original level of revenue expected at the time the
22 decision was made to make the capital investments necessary to connect these new customers.

23 Black & Veatch understands that the fundamental reason why EGNB failed to pass the SEP Test for
24 calendar years 2016 and 2017 was because its incremental revenues from new customers had not reached
25 the higher levels expected when the decisions were made to expand its gas distribution system.
26 Specifically, many of the capital projects completed by EGNB during 2016 and 2017 did not have the
27 expected “anchor” gas customers commence gas service during the same year the capital project was
28 undertaken, thereby significantly affecting the revenue side of the SEP Test which caused the revenue-to-
29 cost ratio for those years to decline below acceptable levels. EGNB describes its decline in revenues from
30 new customers during 2016 and 2017 as being caused by changes to the New Brunswick Gas Distribution
31 Act, 1999 enacted in 2012. Black & Veatch views this change in New Brunswick’s legislative and
32 regulatory framework, the prevailing economic conditions in EGNB’s service area, and the fact that
33 historically EGNB has provided system expansions in the areas of most favorable economics and density

1 as valid reasons similar to the ones observed elsewhere in the utility industry that can create an unplanned
2 time lag in the realization of new business revenues.

3 Most importantly, it should be recognized that prudent utility planning and the forecasting of new gas
4 loads cannot anticipate all these factors which can cause a delay in the initiation of gas service by
5 customers. As a result, it is reasonable to conclude that EGNB's system expansion process should be
6 reviewed by the Board in consideration of the facts known by the utility at the time each of its decisions
7 are made to expand its system to connect new customers, and to recognize the inherent mismatch that can
8 readily occur between the incremental capital investment and revenues.

9 These perspectives are especially relevant to a small gas utility like EGNB since the changed plans of any
10 single customer to utilize gas service can have a greater impact on the underlying economics of system
11 expansion than for a utility serving a greater number of customers in a service area with a much denser
12 population base. Furthermore, given that EGNB is a relatively new gas distribution utility, it is
13 reasonable to expect as its gas distribution business matures that new system expansion projects will
14 occur in areas that are still economical, but may require additional time for new customers to initiate gas
15 service.

16 **Nature of the Proposed Change to EGNB's Current SEP Test**

17 EGNB has proposed the use of a 3-year rolling average for the SEP Test to annually report to the Board
18 the results of its system expansion activities on a total portfolio basis. If the revenue-to-cost ratio under
19 the SEP Test is at or above a level of 1.04, EGNB proposes the Board make a determination that EGNB
20 was justified in making the capital investments over the most recent 3-year period. It should be noted that
21 EGNB is not proposing to change the structure and computational details of its current SEP Test for
22 purposes of evaluating the economic reasonableness of its system expansion projects.

23 In my opinion, it is relevant to emphasize the need for some degree of regulatory discretion on the part of
24 the Board in its review of EGNB's system expansion activities if, in a specific year, EGNB fails to pass
25 the SEP Test. While a strict adherence to a pass/fail decision may be preferred with the establishment of
26 a "bright line" metric under the SEP Test, for a small utility such as EGNB, there can be unique
27 circumstances with regard to unanticipated market conditions and customer actions which should be
28 considered in determining the reasonableness of EGNB's ongoing decision-making process to deploy
29 capital to support its system expansion activities. Just as with any other utility regulatory issue that must
30 be addressed by the Board, I believe it is normal practice for the regulator to investigate and understand
31 the underlying reasons causing an outcome, and to reach a reasoned decision through review of
32 quantitative and qualitative evidence as well as the exercising of business judgment. If there are valid

1 reasons which justify EGNB's business decisions and resulting actions in expanding its gas distribution
2 system, the Board should have the discretion to give them some weight in reaching a decision on the
3 reasonableness of EGNB's capital investments and the recovery of those costs through rates.

4 **Black & Veatch's Recommendation to the Board**

5 Black & Veatch believes that EGNB's proposed change to its current SEP Test represents a necessary
6 refinement to the current regulatory reporting method for its system expansion activities for the following
7 reasons:

- 8 • It presents to the Board a more reasonable representation of the economic outcomes of EGNB's
9 ongoing activities to expand its gas distribution system to connect new gas customers.
- 10 • It demonstrates that EGNB's system expansion activities on a total portfolio basis satisfy the
11 economic criteria reflected in the current SEP Test used to evaluate the economics of its system
12 expansion projects.
- 13 • It better aligns the incremental capital expenditures made by EGNB to expand its gas system to
14 connect new customers with the initiation of gas service by new customers and their generation of
15 incremental rate revenues to recover those costs over the life of the utility's investments. In other
16 words, a multi-year portfolio test appropriately considers the timing differences between a
17 utility's capital expenditures and revenue generation by new customers.
- 18 • The current Board approved method is an acceptable portfolio test and moving to a multi-year
19 test for regulatory reporting purposes does not change the conceptual and computational details of
20 the method. The SEP Test is familiar and remains transparent.
- 21 • The multi-year portfolio test is commonly used in the gas distribution utility industry and is a
22 reasonable approach for EGNB to adopt through a change to the current SEP Test since it has
23 already been found by the Board to meet the primary purposes and attributes of a reasonable
24 system expansion policy.
- 25 • The Board should have some degree of regulatory discretion if in a year EGNB fails to pass the
26 SEP Test to accommodate unique circumstances regarding unanticipated market conditions and
27 customer actions which should be considered in determining the reasonableness of EGNB's
28 ongoing decision-making process to deploy capital to support its system expansion activities.

29 **EGNB's Variance Account Proposal**

30 EGNB has proposed to implement separate variance accounts to accommodate and track differences in
31 the budgeted funding level of its Residential and Commercial incentive programs⁵ compared to the actual
32 amounts spent by EGNB. The operation of these accounts will enable EGNB to utilize any unspent

⁵ Including EGNB's Non-Residential Retention and Propane Winback Programs.

1 amounts in subsequent years to help provide the necessary incentives to connect additional new customers
2 to EGNB's gas system. It will also help moderate the need for additional funding of the programs in
3 subsequent years. At a future point in time, if a portion of the balance of those funds is no longer required
4 for marketing purposes, the proposed variance accounts will allow EGNB to refund the balances to its
5 customers.

6 **The Concept and Widespread Use of Variance Accounts in the North American Utility Industry**

7 A variance account is a tracking mechanism⁶ used to ensure that a utility recovers from customers certain
8 types of costs the regulator has authorized to be included in rates and that over time customers do not pay
9 more than they should. The most common form of this mechanism in the gas distribution utility industry
10 is a Purchased Gas Adjustment (PGA) mechanism, or for EGNB its Purchase Gas Variance Account
11 (PGVA) which adjusts its gas rates (for customers taking Standard Offer service) at a later point in time
12 based on the difference between the estimated cost of purchasing and selling gas and the actual cost of
13 these activities.

14 Utility regulators have determined the need for this type of account as an appropriate cost recovery
15 method when it addresses costs and/or business factors (e.g., weather, gas usage) that are uncontrollable
16 by the utility, variable and unpredictable, material, and of a recurring nature. The use of variance
17 accounts for ratemaking purposes is a widely accepted and utilized method by regulators and utilities in
18 Canada and the U.S. Specifically, the provincial regulators in British Columbia, Alberta, Manitoba,
19 Ontario, Québec and Nova Scotia have approved the use of variance accounts for its gas distribution
20 utilities to address variations in the level of their purchased gas expenses, in addition to this Board in New
21 Brunswick. In EGNB's most recently completed rate application (Matter No. 371), the Board created a
22 variance account in conjunction with its approval of the provision by EGNB of a Load Retention Program
23 to the Industrial Contract General Service (ICGS) customer class.⁷ Revenue shortfalls as a result of a load
24 retention rate will be recorded by EGNB in a Load Retention Variance Account (LRVA) and amounts
25 recorded in the LRVA will be included in the revenue requirement for EGNB's next fiscal year.

26 Enbridge Gas Distribution (EGD) and Union Gas Limited in Ontario have received multiple regulatory
27 approvals from the OEB to treat a number of cost components and other business factors through the use
28 of variance accounts, including unaccounted for gas (UAF) expense, demand-side management (DSM)
29 costs, customer care costs, pension and post-employment benefit expenses, capital spending on mains

⁶ In other regulatory jurisdictions, variance accounts are also known as balancing accounts, deferral accounts, rate riders or automatic adjustment mechanisms.

⁷ New Brunswick Energy and Utilities Board, Decision in Matter No. 371, issued on December 13, 2017, page 10.

1 relocation activities, and average gas usage. For example, EGD was permitted by the OEB to implement
2 a variance account for its DSM costs.⁸ Under this regulatory treatment, any variance between the DSM
3 amount included in the utility's allowed revenue requirement and the actual DSM amounts incurred in a
4 particular year will be recorded in the DSMVA.⁹

5 In Québec, the Régie de l'énergie approved the use of a variance account for Hydro Québec in
6 conjunction with approval of a load retention rate for the utility's Rate L customers.¹⁰

7 In the U.S., there are numerous examples of gas and electric utilities that have implemented a wide
8 variety of variance accounts and related ratemaking mechanisms to address variations in items such as
9 purchased gas costs, revenues, sales volumes, weather conditions (i.e., variation in temperature from
10 normal levels), energy assistance program costs, bad debt (uncollectible expenses), environmental costs,
11 regulatory assessment costs, smart metering and grid modernization investment costs, pension and other
12 post-retirement benefits, property taxes, and energy efficiency and DSM costs. In a few jurisdictions
13 (e.g., California and Ohio), almost half of the utility's total revenue requirement is recovered from
14 customers through the operation of variance accounts.

15 While these examples depict a wide range of costs and/or business factors that are addressed by other
16 utilities through different forms of variance accounts, there are no examples of variance accounts that
17 address the cost of a gas utility's marketing incentive programs. This is not a surprising situation,
18 however, when one recognizes that the market conditions faced by other gas utilities are very different
19 compared to those of EGNB. Other gas utilities operate in mature markets in which the customer base for
20 gas utility services is already well established, so funding of broad-based marketing incentive programs is
21 not required to help develop and accelerate the utility's market opportunities. In addition, larger gas
22 utilities already experience the synergistic benefits provided by greater customer counts and throughput
23 volumes so the need to aggressively grow its customer base is not as critical an issue as with a smaller-
24 sized gas utility.

25 **Black & Veatch's Recommendation to the Board**

26 Black & Veatch believes that EGNB's proposal to implement multiple variance accounts to accommodate
27 and track differences in the budgeted funding level of its marketing incentive programs compared to the
28 actual amounts spent by EGNB should be approved for the following reasons:

⁸ Designated as EGD's Demand Side Management Variance Account (DSMVA).

⁹ See Enbridge Gas Distribution, Inc., 2017 Rate Adjustment Application (dated October 4, 2016), OEB File Number
EB-2016-0215, Exhibit D2, Tab 1, Schedule 1, Page 22 of 33.

¹⁰ Decision D-2010-022 issued on March 4, 2010 by the Régie de l'énergie in R-3708-2009, page 45.

- 1 • The conceptual basis and structure of EGNB’s proposed variance accounts will properly address
2 and track for ratemaking purposes the annual variation in the budgeted funding level of its
3 marketing incentive programs compared to its actual spending level.
- 4 • The Board has adopted the use of variance accounts for EGNB in the past, so the ratemaking
5 concept is familiar to the Board and other stakeholders.
- 6 • Variance accounts are a widely used and acceptable ratemaking method in the North American
7 utility industry to accommodate changes in various revenue/cost components or other factors
8 impacting the recovery of a utility’s total revenue requirement.