

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF THE GAS DISTRIBUTION ACT

- and -

IN THE MATTER OF AN APPLICATION by **HERITAGE GAS LIMITED** for approval of modifications to its feasibility test criteria and a proposal to address residential retro-fit expansion

BEFORE: Peter W. Gurnham, Q.C., Chair
Kulvinder S. Dhillon, P.Eng., Member
Murray E. Doehler, CA, P.Eng., Member

APPLICANT: **HERITAGE GAS LIMITED**
John C. MacPherson, Q.C.
Christopher H.C. Smith, C.A.

PARTIES: **CONSUMER ADVOCATE**
William L. Mahody, LL.B.

NOVA SCOTIA DEPARTMENT OF ENERGY
Andrew Younger, Minister

BOARD COUNSEL: S. Bruce Outhouse, Q.C.

FINAL SUBMISSION: January 20, 2014

DECISION DATE: **February 20, 2014**

DECISION: The modifications to the feasibility test requirements and the proposal to address retro-fit expansion are approved as amended by this Decision.

1.0 INTRODUCTION

[1] In its 2004 decision approving the Heritage Gas Limited (“Heritage”) rate application, the Nova Scotia Utility and Review Board (“Board”) also approved Heritage’s proposed feasibility test criteria. It provides that all proposed natural gas main extensions would be evaluated against the criteria and only those projects that met the approved economic threshold would proceed.

[2] In 2008, during the course of Heritage’s rate application hearing, the Board became concerned that the feasibility tests needed closer scrutiny and found:

[127] The Board is concerned that if the feasibility tests are not conducted properly, it will negatively impact ratepayers by increasing the RDA¹.

...

[129] The Board further directs Heritage to continue to prepare community and mains feasibility test calculations for all new areas and all extension of its mains. The Board requires Heritage to include this information with its permit to construct applications.

[Decision, 2009 NSUARB 15, p. 36]

[3] While this increased scrutiny succeeded in ensuring that main extensions were economically justified, the parameters of the main feasibility test (“MFT”) made justification for expanding into new areas challenging. In a complaint heard by the Board in 2010, two potential residential Heritage customers complained that they were refused access to natural gas for economic reasons. The Board found:

[86] As has been noted earlier in this decision, the Board is cognizant of the interaction between the RDA and the MFT. Until the RDA balance is under control and no longer increasing, the Board finds that the MFT should be maintained.

[Decision, 2010 NSUARB 229, p. 32]

[4] The Board notes that, in more recent filings, Heritage’s RDA forecast indicates it is now decreasing. In its September 30, 2013 filing of reports/reconciliations

¹ Revenue Deficiency Account

for the six month period ending June 30, 2013, Heritage reported an RDA decrease from \$44.5 million to \$39 million.

[5] In its November 12, 2013, application (“Application”), which is the subject of this Decision, Heritage requested Board approval of three items:

- a) Allow Heritage Gas to adjust the definition of committed customers included within the MFT calculations to include 100% of DSAs (existing practice) and add 50% of EOLs;
- b) Allow Heritage Gas to adopt a portfolio approach to the economic evaluation of projects across its entire system (excluding residential retro-fit projects); and
- c) Allow Heritage Gas to include up to \$1.0 million/year in rate base to subsidize residential retro-fit projects which would not otherwise satisfy the MFT.

[Exhibit H-1, p. 5]

[6] The Board notified interested parties and invited participation in accordance with the following timetable:

Information Requests to Heritage Gas	Friday, December 13, 2013
Responses by Heritage Gas	Friday, December 20, 2013
Submissions by the Intervenors	Monday, January 13, 2014
Response by Heritage	Monday, January 20, 2014

[7] The Consumer Advocate (“CA”) and Board Counsel’s consultant, Energy Consultants International Inc. (“ECI”), submitted Information Requests (“IR’s”) to Heritage and made submissions to which Heritage responded.

[8] Additionally, a submission was filed by Minister Andrew Younger, on behalf of the Nova Scotia Department of Energy (“NSDOE”).

[9] Each of the three items for which Heritage is seeking approval is discussed in the following sections.

2.0 DEFINITION OF COMMITTED CUSTOMERS

[10] In calculating the MFT, Heritage included forecast revenues from committed customers only. Historically, only customers who had signed a Distribution Service Agreement (“DSA”) with Heritage could be considered committed customers.

[11] Heritage requested Board approval that the definition of committed customers include 50% of forecast revenues from customers who have provided an Expression of Interest (“EOI”) which is defined as:

Expression of Interest (EOI)

EOI is a classification that captures any potential customer wishing to receive gas that meets the following criteria:

Potential customer is on an existing main with no digging restrictions (i.e. paving bans),
or

Potential customer is on a main that is planned for construction, or

Potential customer is very close to an existing main and it is estimated that providing service would pass any required feasibility test, and

Customer has expressed an interest in using natural gas and initiating the process to acquire service.

Based on an EOI, Heritage Gas will start the process of determining meter location, calculating any customer contribution and establishing the Requested Target Activation date. An EOI is not required if a potential customer is willing to sign a DSA right away and make commitment to use gas, or if there is already service provided to the building.

[Exhibit H-1, pp.6-7]

[12] Heritage supported its request with historical data showing that within a year of a main extension, almost 50% of EOI potential customers were taking gas and that number grew to 60-70% in the second year.

[13] Heritage argued that revising the definition of committed customers as requested will give a more realistic estimate of revenues that can be reasonably expected from a main extension, and would facilitate distribution system expansion without negatively impacting the RDA.

[14] The CA and ECI supported the inclusion of 50% of EOI potential customers in the definition of committed customers for purposes of the MFT. NSDOE also supported the approach, but did not comment on the percentage of EOI potential customers that should be considered.

[15] The Board agrees with the parties that it is appropriate to revise the definition of committed customers as requested by Heritage and directs Heritage to file a revised MFT description for Board approval.

3.0 PORTFOLIO APPROACH

3.1 Portfolio Feasibility

[16] In its Application, Heritage noted that the current approach to evaluating main extension projects is somewhat restrictive:

In compliance with the Board's instructions, Heritage Gas assesses all natural gas main extension projects on an individual, stand-alone basis and does not group non-contiguous main extension projects together. Each project must pass the economic hurdles of the MFT calculations by itself. This approach limits expansion activity as Heritage Gas has no other method by which to reach streets/neighbourhoods that cannot pass the MFT thresholds independently.

[Exhibit H-1, p. 9]

[17] To provide a less restrictive approach to project economics, Heritage proposed a portfolio approach:

Heritage Gas is proposing that the average of MFT calculations for all main extension projects (in a calendar year and excludes residential retro-fit projects that are dealt with in Section 3.4 below), using a portfolio approach, should be used to determine if Heritage Gas should proceed with potential projects. In other words, individual main extensions that pass MFT requirements by a significant margin will increase the average of MFT calculations for all main extension projects included in the portfolio and provide Heritage Gas with the ability to pursue some individual, less-profitable projects that would otherwise not pass their independent MFT hurdles.

[Exhibit H-1, p. 9]

[18] Additionally in the Application, Heritage provided excerpts from an Ontario Energy Board (“OEB”) report, which discussed using a portfolio approach, similar to that proposed by Heritage, in assessing system expansion projects. The OEB report concluded that the portfolio approach would result in more marginal customers being served with no long term rate impact to existing customers.

[19] Heritage concluded that:

The portfolio approach for managing projects is a prudent and cost effective way to provide more businesses and residences with access to natural gas, while not negatively affecting Heritage Gas’ RDA. Heritage Gas believes the use of the proposed portfolio approach will allow Heritage Gas to increase expansion of natural gas mains and help new areas get access to natural gas.

[Exhibit H-1, p. 10]

[20] Both the CA and NSDOE supported the portfolio approach provided it is conducted under the Board’s usual oversight.

[21] ECI also agreed with approving the portfolio approach:

... In ECI’s view, if the overall portfolio of main extensions undertaken in any year achieves the MFT thresholds, the new customers attaching each year will not unduly burden existing customers. The adoption of the portfolio approach will not impose an undue burden on Heritage’s existing customers because the existing customers are indifferent to whether Heritage builds a single large main extension that passes the MFT thresholds or a group of main extensions that pass the MFT thresholds. ECI recommends the Board approve the proposed portfolio approach ...

[Exhibit H-5, p. 10]

[22] ECI recommended the establishment of minimum profitability and Net Present Value (“NPV”) ratios:

As stated in the response to ECI-IR-7, Heritage is not proposing a minimum profitability ratio or NPV ratio that any individual main extension must achieve. Utilities in Ontario may include projects that have profitability or NPV ratios as low as 0.8 in their portfolios. Where projects do not meet this threshold, customers are required to make contributions in order to bring the profitability and NPV ratios to 0.8 or greater.

...

ECI recommends that the Board establish minimum profitability and NPV ratio thresholds in order for projects to be included in Heritage’s portfolio. Minimum profitability and NPV

ratio thresholds will reduce the amount of cross-subsidization between customers that attach within each year's portfolio.

[Exhibit H-5, p. 11]

[23] Heritage argued that the minimum thresholds recommended by ECI are unnecessary:

Heritage Gas submits that the portfolio approach as outlined in the Application does not require minimum profitability and NPV thresholds. The portfolio approach proposed by Heritage Gas is inherently "conservative" in that it relies on actual customer commitments as demonstrated by DSA's or EOI's (if the proposal discussed above is approved by the Board). This differs from the situation in Ontario where the OEB considers the potential for customer connections over a ten year time frame without a requirement of evidence of actual customer commitments.

Because of the conservative nature of the portfolio approach proposed, the additional requirements of minimum profitability and NPV ratios are not necessary.

[Exhibit H-7, p. 4]

[24] The Board agrees with the parties that moving to a portfolio approach is appropriate. The Board observes that the RDA is decreasing and will not be significantly impacted in the long term. It appears existing customers will not be significantly impacted and this change will allow more customers, in particular residential, to be connected to the system at a faster pace.

[25] The Board is not prepared at this time to implement minimum profitability and NPV thresholds as recommended by ECI. The Board accepts Heritage's argument that its current approach is already conservative, given that it will only include committed customers for purposes of forecasting revenue. Ongoing oversight and review of portfolio projects by the Board will continue to ensure that neither the RDA nor existing customers are being negatively impacted. If, in future, the Board finds that the RDA or existing customers are significantly impacted due to the portfolio approach, it will revisit the issue.

3.2 System Reinforcement

[26] In response to an IR regarding security of supply projects and system reinforcement being included in a portfolio of projects, Heritage stated:

Heritage Gas applies for specific Permit To Construct (“PTC”) approvals for all system reinforcement projects on a stand-alone, independent basis, in accordance with the Board’s letter dated June 9, 2009 (related to HG-PC-120(01):

The Board recognizes that sometimes, for various reasons, the feasibility test will fail with a small margin, although a project may be otherwise fully justifiable (i.e. system reinforcement, certainty of future attachments, safety or environmental considerations, road widening, etc.). In those cases, HG would be expected to provide a full rationale to ECI as to why the project should be approved. ECI would review the information and make a written recommendation to the Board, which would then make a final determination.

Heritage Gas is not proposing to include any system reinforcement projects within the proposed portfolio approach as these projects will continue to be presented to the Board and ECI with a full rationale as to why the project should be approved.

[Exhibit H-3, p. 18 of 78]

[27] In its evidence, ECI agreed that such projects need not be included in a portfolio:

That said, ECI recommends that system reinforcement projects not be included in the portfolio. Heritage is substantially smaller than the gas utilities in Ontario, and Heritage has not constructed many system reinforcement projects. A normalized cost of reinforcement projects may be difficult to calculate as Heritage has undertaken few such projects. The potential future need of additional reinforcement projects is not likely to be clearly known by Heritage at this time, and based on past experience these projects are few and far between. It may be several years before Heritage constructs another system reinforcement project. Finally, the Board has established a process for addressing system reinforcement projects that provides the Board with supporting data and cost implications with which to make its decision.

[Exhibit H-5, p. 12]

[28] The Board agrees that system reinforcement should not be included in a portfolio of projects. Heritage will continue to provide a complete rationale for any such projects.

3.3 Ongoing Monitoring and Reporting

[29] Given that the portfolio approach represents a considerable change from the current method for assessing main extension economics, ECI recommended additional reporting with an early timeline, at least for the first year:

ECI recommends that Heritage provide the summary of the aggregate Profitability Ratio, NPV Ratio, and total construction costs of the main extensions forecasted to be undertaken in the 2014 construction season along with the corresponding individual MFTs. ECI also recommends that Heritage provide the updated summary of aggregate Profitability Ratio, NPV ratio, and total construction costs following the construction season, including individual MFTs reflecting the actual construction costs of each project and the numbers of customers attached as of the end of each construction season.

...

ECI recommends that this information be submitted to the Board by February 28, 2015, which will present the Board an opportunity to review the results and provide any additional direction to Heritage prior to the commencement of the 2015 construction season. The Board can then decide whether the same level of reporting is to continue in subsequent years. ECI recognizes that this is a large amount of additional reporting. When the Board is satisfied with the operation of the portfolio, the level of detail in the reporting may be reduced.

[Exhibit H-5, pp. 12-13]

[30] In response, Heritage stated:

Heritage Gas is of the view that the amount of information which ECI recommends be provided is excessive. Heritage Gas believes that the reporting obligations it has undertaken to provide on June 30th each year are adequate and appropriate at this time (as stated at page 17 of the Application).

[Exhibit H-7, p. 4]

[31] In the Board's view, not only is the portfolio approach new to both Heritage and the Board, it involves many variables, assumptions and forecasts that may need further refinement as lessons are learned from this new approach. The Board agrees with ECI and directs Heritage, at least for the first year, to undertake additional monitoring and reporting as noted in paragraph [29]. The Board expects that Heritage would be performing the monitoring and analyzing the data for its own use in any case and it should be a relatively simple matter to provide that information to the Board in a report.

[32] Additionally, ECI stated:

After five years, ECI recommends Heritage provide a “true-up” of the actual performance of the aggregate portfolio. The purpose of such a true-up is to evaluate whether including 50% of EOs in the MFT remains appropriate, and to confirm that the portfolio approach has not resulted in undue cross-subsidization between Heritage’s customers. Thus, in 2019 Heritage should provide the updated aggregate Profitability Ratio and NPV Ratios from the 2014 main extension portfolio. Heritage should explain the variances if these ratios materially differ from those provided following the 2014 construction season. A five-year true-up should then be calculated each subsequent year.

[Exhibit H-5, p. 13]

[33] In its reply, Heritage agreed that a “true-up” as recommended by ECI would be appropriate. The Board agrees and directs Heritage to proceed in accordance with ECI’s recommendation.

[34] The portfolio approach, as proposed by Heritage and as amended herein by the Board, is approved.

4.0 RESIDENTIAL RETRO-FIT ASSISTANCE FUND

4.1 Economic Considerations

[35] The third item for which Heritage seeks Board approval is:

...to allow the inclusion of up to \$1.0 million each year in rate base to assist residential retro-fit projects to meet the MFT. The proposed cap of \$1.0 million amount would function as an aid to bridge the gap between the total project capital and the capital supported by the revenue generated by the project. Existing customers will essentially be subsidizing these residential retro-fit streets. Heritage Gas will use a set of criteria to determine which residential retro-fit projects will be considered for a possible contribution from this fund, as described below.

[Exhibit H-1, p. 11]

[36] Heritage believes that the residential retro-fit assistance fund (“RRAF”) will allow the distribution system to be expanded earlier and further than it otherwise would, enabling “more areas to be served and more Nova Scotians to have access to natural gas.” The Board notes that no party disagreed with this assertion.

[37] NSDOE supported the RRAF concept, but expressed concern regarding the potential cost impact on existing customers.

[38] The CA expressed similar concern and suggested:

The Consumer Advocate would urge Heritage Gas to consider financing an up-front payment over a 10-year period and include the charge as part of the monthly bill. The Consumer Advocate understands that this is a fairly common practice with other utilities where there are detailed main expansion policies and formulas that determine how much of a customer contribution is required, based on expected revenues from the extension.

[Exhibit H-6, p. 2]

[39] In response, Heritage argued that:

Heritage Gas notes that residential retro-fit customers are already faced with a substantial financial burden when they choose to switch their space heating and other energy needs to natural gas. It would be unfair to further burden these home owners with additional costs due to the timing of the availability of natural gas distribution service in their street.

Experience has shown that potential residential retro-fit customers are not prepared to make "contributions in aid of construction" for residential infill main extensions in order to facilitate access to natural gas service. Heritage Gas submits that requiring the customer to repay the RRAF will not be an effective way to encourage conversion.

[Exhibit H-7, p. 7]

[40] Heritage also stated:

The Consumer Advocate states at page 2 of his submission:

"The cumulative impact on the RDA over 12 years is an increase to the RDA of approximately \$8 million."(CA IR-8)

This is a misinterpretation of the Response to CA IR-8. The information provided illustrates that in 2020, the RDA, without the inclusion of RRAF projects, would be \$2,692,874. With the RRAF projects included, the RDA is projected to be \$5,626,991. Therefore the "cumulative effect" of the RRAF on the RDA prior to its recovery is \$2,984,144.

Heritage Gas submits that this does not constitute an "undue burden" on existing customers or any customer class.

[Exhibit H-7, p. 6]

[41] ECI did not recommend the RRAF be approved, but stopped short of recommending it not be approved. ECI's concern is that existing customers, or future

customers on main extensions that meet the economic thresholds, may be subsidizing the customers who get the benefit of the RRAF.

[42] While the Board notes that the operation of the RRAF will add slightly to the RDA and extend RDA recovery by about half a year, the Board does not find these small changes to be particularly troubling, given that the RDA is now decreasing year-over-year and it appears that it is being appropriately managed by Heritage.

4.2 Selection Criteria

[43] Heritage proposes to rank RRAF candidates according to these criteria:

1. Feasibility Test Results: Actual (100% DSAs & 50% EOs)
2. Feasibility Test Results: 40% Penetration
3. Paving Considerations
4. Surface Distress Index (“SDI”) Considerations

[44] ECI pointed out that in applying these criteria as proposed, some neighbourhoods may never qualify for the RRAF:

ECI notes that Heritage justifies the creation of the RRAF by stating it will assist with extending gas service to potential customers that may otherwise never receive service: “...experience to date indicates that with some residential retro-fit neighbourhoods, even with 100% penetration from all potential customers, the economic thresholds of the MFT cannot be reached.” However, this particular criterion – that a street or neighbourhood could never obtain gas service because the main extension would never meet the MFT thresholds – is not included in Heritage’s proposed selection criteria. In fact, the second criterion that assesses the total potential of a main extension would penalize these main extensions. It is even possible that the streets and neighbourhoods that could never pass the MFT thresholds will never be selected to receive RRAF funding. If Heritage is to justify the RRAF by stating it will assist the feasibility of projects that would otherwise never pass the MFT, then it should include this as a selection criterion and not penalize those projects.

However, eliminating criterion 2 and adding a criterion that favours main extensions that would never pass the MFT even with 100% penetration would have the opposite effect as criterion 1. That is, it would favour *less* economic projects.

ECI does not recommend elimination of criterion 2 nor does ECI recommend a criterion that would favour main extensions that would otherwise never pass the MFT thresholds. ECI views the conflict between the selection criteria and the intended target streets and neighbourhoods as an additional reason not to approve the RRAF.

[Exhibit H-5, pp 15-16]

[45] The Board notes that in its reply, Heritage did not comment on this issue. While the Board understands ECI's concern, in the Board's view, the criteria as proposed by Heritage will serve the intended purpose of expanding the distribution system to streets and neighbourhoods that would otherwise not be included, while at the same time providing some expectation that the MFT thresholds will eventually be met. The RRAF should not be used to expand the system to streets or neighbourhoods for which the MFT thresholds cannot be reached even with 100% penetration, so long as higher ranking candidates are available.

[46] Regarding criteria 3 and 4, ECI observed:

Heritage includes two criteria relating to pavement condition. Criterion 3 gives preference to streets that will be completely reconstructed or repaved. In those situations, not only does the street renewal impose a ban on disturbing the street for several years and precluding a main extension during that time, but Heritage's construction costs will be lower. However, if the street is to be reconstructed or repaved, then the Surface Distress Index is rendered irrelevant. In these situations, including a criterion for Surface Distress Index is double-counting the construction cost impact on the main extension. ECI is of the view that criterion 4 should only be considered if criterion 3 is scored as a zero, meaning there are no plans to reconstruct or renew the pavement.

ECI has no objections to the selection criteria 1 and 2 or the general methodology proposed by Heritage to prioritize funds from the RRAF for residential retrofit projects. ECI recommends that criterion 4 only be considered if criterion 3 is scored a zero.

[Exhibit H-5, p. 16]

[47] In its reply, Heritage agreed with this recommendation, as does the Board.

[48] Having considered the evidence, it is the Board's view that, on balance, the RRAF will have an overall positive impact for all customers with very little risk of harm to any customer given the relatively small amounts involved compared to the Heritage total rate base. Anything which reasonably allows the distribution system to be expanded will most likely have a positive benefit by creating increased economies of scale.

[49] Heritage proposed reporting on RRAF results:

Summarize all retro-fit projects that were subsidized by the residential retro-fit assistance fund and include this information as part of Heritage Gas' annual financial reporting requirements (filed June 30th of every year)..

[Exhibit H-1, p. 17]

[50] Although the content of such an RRAF summary is not specified, the Board anticipates that it will contain sufficient information to allow the Board to form a reasoned opinion as to whether or not the RRAF is performing as expected.

[51] The RRAF as proposed by Heritage, and amended in this Decision, is approved.

5.0 RATES USED IN MFT CALCULATION

[52] In its evidence, ECI argued that Heritage should use currently approved rates in its MFT calculations, without escalation. ECI noted that while Heritage does escalate rates in MFT calculations, it does not escalate operating expenses. Combined, these two factors may result in a somewhat optimistic MFT result.

[53] ECI went on to say:

While this issue was not brought forward by Heritage in its Application, the current review of the feasibility parameters is perhaps an appropriate time to consider this refinement to the MFT.

[Exhibit H-5, p. 17]

[54] Heritage responded:

As noted, this is not an issue that is raised by the Application currently before the Board. Heritage Gas submits that it would be inappropriate to consider a change in the MFT of the nature suggested in the absence of evidence, full submissions, etc.

[Exhibit H-7, p. 8]

[55] The Board directs Heritage to include evidence on the issue with its next rate application.

6.0 SUMMARY OF FINDINGS

[56] The following summarizes the Board's findings:

- a) The request to revise the definition of committed customers is approved. Heritage is directed to file a revised MFT description for Board approval by March 6, 2014;
- b) Heritage shall, for 2014 initially, report on the performance of the portfolio approach in accordance with ECI's recommendations. Additional reporting, if needed, will be directed by the Board;
- c) Heritage shall provide a five-year true-up of the actual performance of the aggregate portfolio in accordance with ECI's recommendation;
- d) The portfolio approach as proposed by Heritage is approved, subject to the above noted reporting requirements;
- e) The RRAF as proposed by Heritage is approved, as amended by the Board;
- f) Criterion 4 of the RRAF selection criteria will only be considered if criterion 3 is scored a zero;
- g) With its next rate application, Heritage shall address MFT calculation parameters and, in particular, the application of escalation to revenues and expenses;
- h) The RRAF reporting is to be included with Heritage's annual filing.

[57] An Order will issue accordingly.

DATED at Halifax, Nova Scotia, this 20th day of February, 2014.

Peter W. Gurnham

Kulvinder S. Dhillon

Murray E. Doehler