

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

PUB/CAC(METSCO)-7 Reference: METSCO Evidence p.6; PUB/Centra II-41

Preamble:

Unlike the PUB's jurisdiction over Manitoba Hydro, the PUB has authority over the capital expenditures of Centra including the authority to disallow expenditures from rate base.

Request:

If the clarification in the Preamble alters any of METSCO's findings or recommendations, please restate them.

Response:

METSCO thanks the PUB for the clarification. Despite this noted difference in mandates and its implications, METSCO does not wish to alter any of its findings or recommendations at this juncture. While METSCO's report questions the basis of multiple assumptions and assessments underlying specific projects (such as those referenced in our recommendations 1, 2, and 8) the amount of information provided on file is insufficient for us to advocate for targeted reductions.

Instead, and consistent with the report, it is our hope that the PUBs and parties can explore these issues further during the hearing phase of the proceeding. Once more clarity is obtained, the PUB and other parties should be in a better position to contemplate potential funding changes, if any.

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

PUB/CAC(METSCO)-8 Reference: METSCO Evidence p.44; CAC/Centra I-37

Preamble:

When executing a portfolio of capital projects in a test year, Centra appears to expect that not all of them will be executed (or not fully spent) due to external delay factors (such as contractor availability). Centra appears to use negative target variances in its test year capital expenditure forecasts to reduce the forecast capital spending to match its expectation of test year spending levels. Without a test year negative target variance, Centra would likely overstate the capital spending levels and its corresponding revenue requirement.

Request:

Instead of using target variances, how does METSCO recommend Centra more closely align its test year forecast capital spending with actual capital spending in order to avoid consistently overstating in-service additions and the resulting revenue requirement?

Response:

As stated in our report, METSCO recognizes the practical difficulties with multi-year capital forecasting, including the issues noted in the preamble. However, it remains our view that demanding greater rigour in forecasting is reasonable, as it represents a relatively simple tool for the Regulator to incent continuous improvement in planning, scheduling, and construction work management.

By demanding firm Test Year forecasts and exploring any over- or under-deliveries through ex-post variance analysis (as many regulators do), the PUB would place the onus squarely on the utility to match its forecasts with its deliveries, including through in-year re-prioritization of expenses arising due to unforeseen

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

circumstances. This need not mean that any reasonably justified over-or under-deliveries would lead to punitive consequences, and variance accounts could be used to make the utility whole for any reasonable investments in excess of the capital addition forecasts. However, the potential of carrying costs of over-investments being disallowed, or funding associated with under-investments being returned to ratepayers, would incent the utility to improve its internal processes over time, leading to higher forecasting precision.

At the same time, through joint exploration of annual variances in some detail, the PUB and other parties would stand to learn more about the specifics of Centra's operating circumstances. In our view, doing so would help all parties make better-informed assessments of future applications and generally increase the stakeholders' confidence in Centra's forecasts and project justifications.

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

PUB/CAC(METSCO)-9 Reference: METSCO Evidence p.45,46

Request:

Please provide additional information on the following recommendations:

3. CVF Implementation
4. Sustainment Program Impact Sensitivity
9. Pipeline Risk Assessment Methodology Enhancements
10. System Efficiency Benefits Tracking & Justification
12. Capital – Maintenance Trade-offs

When elaborating on these recommendations, relate the recommendation to findings in METSCO's evidence and make reference to the materials in this GRA. Provide additional justification as well as a description of the deliverable for each recommendation.

Response:

a) Recommendation 3: CVF Implementation

This recommendation stems primarily from METSCO's review of PUB's questions and Centra's responses to the IR PUB/CENTRA II-73a-d. In our understanding, the PUB's questions (and particularly part d) pointed at the PUB Staff's desire to understand the mechanics of scoring underlying the CVF application. In METSCO's assessment, and subject to the PUB Staff's own impressions, Centra's response to part d) lacked the desired specificity to gain sufficient understanding of how the impact categories were selected and what evidence drove the attribution of the specific scores in each category (as opposed to the higher or lower values).

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

More generally, the CVF framework is new, complex and highly consequential to the future prioritization work on the part of Centra and Manitoba Hydro. It is therefore our opinion that a facilitated CVF scoring workshop involving the utility's experts, PUB staff and other interested stakeholders could be beneficial for all parties involved in future review of Centra's forecasts.

METSCO would suggest scheduling a single workshop on a without-prejudice basis, where Centra / Manitoba Hydro would present several project Case Studies, along with all available evidence to substantiate them. The facilitator (presumably a Centra subject matter expert in the area of capital planning) would then lead the participants through the scoring process, answering all questions. The exercise could be even more beneficial if the selected Case Studies included several projects with sufficiently similar drivers but different final CVF scores. In exploring the differences among the final scores (and the Applicant's justifications for them) the parties would gain a greater understanding of the process that Centra intends to rely on in its future planning endeavours.

METSCO's staff have been a party to several similar exercises (most recently in the context of Toronto Hydro's 2015-2019 Custom Incentive Regulation application). In our experience, collaborative engagements of this type (which can take place outside of any specific regulatory proceedings) are extremely valuable, in that they enable the parties to understand the analysis supporting the applicants' evidence in multiple business cases and filings. In doing so, they stand to facilitate the efficiency of future application review efforts and enhance the productive relationship between Centra and the regular rate application participants.

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

b) Recommendation 4: Sustainment Program Impact Sensitivity

This recommendation is driven by METSCO's observations noted at various junctures in our report and particularly section 3.2 pp. 29-30. In our assessment, the significant degree of reliance on past capital work volumes in forecasting of future program and project budgets, may limit Centra's ability to explore future spend reductions informed by new insights.

The application's record contains several examples of evidence that suggests that the utility's assets may be in better condition than originally anticipated. Among them are the implications of early In-Line Inspection work¹ and the overall results of the asset condition assessment contained in Appendix 4-4. In light of these findings, it would be reasonable for an asset manager to explore whether and to what extent the past work program volumes continue representing the optimal investment levels. Given the scarcity of the specifics describing the scope, nature and volume of specific work comprising the capital program budgets or out-year forecasts, it is difficult for the CAC to assess whether the past expenditure levels amount to a satisfactory forecasting benchmark going forward.

More generally, utility regulators in many jurisdictions such as UK's Ofgem, Ontario's OEB and Alberta's AUC are moving towards outcome-oriented models of rate application review, where applicants are required to justify their proposed expenditures on the basis of particular "outcomes" or end-states that they seek to accomplish. Among the potential outcome areas are reliability, employee and public safety, regulatory compliance, etc. Some regulators have advanced these frameworks far enough to mandate that utilities justify the specific impacts of

¹ PUB/CENTRA-I-72-Attachment, p. 26

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

marginal expenditure increases on anticipated service levels (such as determining cost of projected reliability improvement levels).

In proposing a conceptual sensitivity analysis exercise to determine the impact on operations and service levels of potential program cost reductions, METSCO envisions the PUB exploring the relationship between investment volumes and tangible customer and utility outcomes. In our view, there are two relatively simple ways to conduct this sensitivity analysis – either within or outside of a future regulatory hearing.

A simpler way, which we call “top-down” could involve Centra articulating the list of specific activities, volumes, asset counts etc. that it would have to forgo, defer, or otherwise re-prioritize if its program capital expenditures remained at the last year’s levels. Similar analysis could be conducted for program volume tranches below last year’s investments, such as 3%, 5%, 10% etc. The utility would then have to articulate the nature of activities it would be forced to forgo, and their anticipated impact on its service levels, future work backlogs, regulatory obligations etc. Importantly, apart from describing the nature and impact of re-prioritized activities, the Applicant would be asked to identify any potential activities it could take to mitigate the ensuing risks.

A more involved “bottom up” is grounded in a zero-based budgeting approach, where every type of activity (and volume) comprising a specific program would have to be substantiated up to a total level of funding requested, along with the similar articulation of outcomes and potential mitigation efforts. This approach would require substantially more work, which in our opinion, would be more appropriate for an internal analysis that the utility could be expected to undertake from time to time.

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

In our assessment, at this juncture in the application, it may be too late to perform this type of analysis given the level of work required (even in the context of a sufficiently robust “top-down” analysis). Moreover, subjecting the Applicant to this requirement without substantial warning may also be unreasonable, given that the application information was not prepared with this requirement in mind. However, we suggest that the PUB contemplate requesting that some manner of outcome-oriented sensitivity analysis be included in Centra’s future rate applications.

c) Recommendation 9: Pipeline Risk Assessment Methodology Enhancements

As noted in Centra’s response to the IR CAC/CENTRA-II-144, the results of the Pipeline Risk Assessment model have not influenced the development of Centra’s capital forecasts. Moreover, we found no references to the Pipeline Risk Assessment framework anywhere in the CIJs/CPJs provided on the record. METSCO sees significant value in the substantial analytical work that Centra undertook to develop and refine this methodology since its first 2014 iteration.

In our view, the methodology represents the best example of Centra’s efforts to advance its quantitative asset management capabilities and align them with industry best practices. Accordingly, we suggest that the PUB explore the Applicant’s intentions regarding the future use of this model, including further potential enhancements. While it is possible that Centra could consider discontinuing any future use, it would be worthwhile for the Applicant to substantiate the reasons for this decision.

We acknowledge that the ongoing adoption of the Corporate Value Framework could be seen as a sufficient use of risk-based planning tools going forward. However, in our understanding of CVF, its analysis is far less granular than that comprising the Pipeline Risk Assessment work. As such, and as we suggest, it is

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

not unreasonable to contemplate an arrangement where the pipeline risk assessment framework (and its potential expansion to other types of assets) be used to support the CVF scoring within a particular category such as Gas Delivery Reliability. If such an arrangement is either not necessary or not beneficial, Centra could explain it in a brief Pipeline Risk Assessment “roadmap” document that it could prepare within this or future regulatory proceeding.

d) Recommendation 10: System Efficiency Benefits Tracking and Justification and Recommendation 12: Capital-Maintenance Trade-offs

METSCO is addressing these two recommendations together, as they represent related matters of a utility managing their total expenditures portfolio. In microeconomics, one of the key purposes of capital investments is to deliver a given firm’s output volume at a lower average total cost than when utilizing labour.²

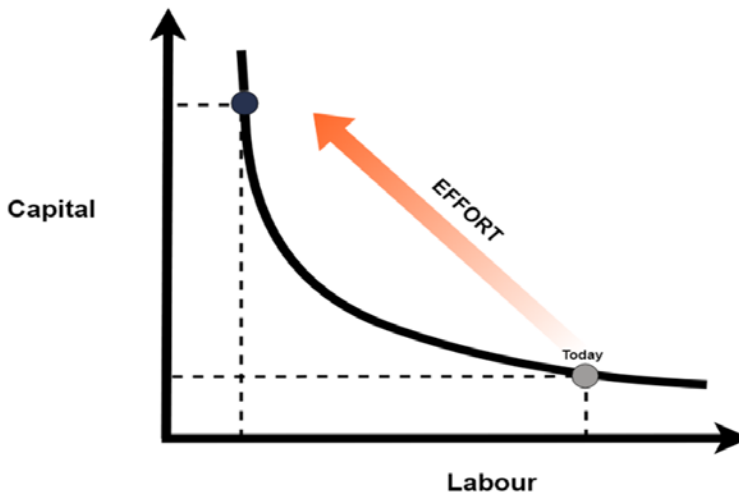


Figure 1: A Standard Isoquant Curve

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

As a company increases its capital stocks, it can expect to reduce its reliance on labour and realize economic benefits, in the form of higher throughput at the same total cost, or lower cost at the same throughput levels as before deploying new labour-saving capital assets. Figure 1 on the previous page illustrates a standard Isoquant Curve that captures an expected relationship between a firm's reliance on various volumes of labour and capital in its production process.

The orange arrow indicates the general expectation that as the firm increases its reliance on capital assets, its volumes of labour used would decrease. The caption "Effort" signals the reality of the fact that moving "up the isoquant curve" takes significant implementation effort, which can be expected to lead to incremental implementation costs.

Returning to the realm of capital-intensive gas utility operations, it is notable that the above theoretical relationship does not hold true in many cases, as certain activities cannot be reasonably performed by labour, and introduction of new units of capital can actually result in higher labour expenses associated with maintenance. However, when it comes to capital enhancements justified as system efficiency, such as station automation or remote monitoring work, it is reasonable to expect the theoretical isoquant curve relationship to hold true (at least directionally). Similarly, when older assets are replaced by new equipment, it is reasonable to expect that the total volume of maintenance work targeting these assets to be lower as well - at least in the short run.

In exploring Centra's evidentiary record in relation to System Efficiency or System Betterment work,³ METSCO observed that the Applicant has neither described the anticipated reliability levels, nor quantified the potential operational efficiencies that it expects. These efficiencies could be calculated in a number of complementary

³ For example, PUB/CENTRA/I-75

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

ways, by considering the impact of automation on drivers such as lower truck rolls, reactive maintenance, overtime costs, or even reduced Customer Interruption Costs through shorter outages. These cost driver reductions need not necessarily materialize in lower aggregate expenditure levels if they can point at higher work program accomplishments within the same cost envelopes. However, and given a degree of discretion on the part of Centra in proposing these system betterment investments, it is reasonable for the Applicant to make an effort to quantify the anticipated value gains.

To METSCO's knowledge, Centra has not produced these types of System Betterment investment value assessments in its past filings. Accordingly, rather than suggesting that the Applicant do so in the context of this filing, METSCO believes that it would be reasonable for the PUB to indicate its interest or expectation that the utility commence an effort to quantify the efficiency gains brought about by system enhancement activities.

In implementing a tracking framework, the Regulator could establish a timeline within which it expects to see the first results, along with continuous enhancements in the quality, depth and breadth of the analysis going forward. METSCO acknowledges the possibility that the efficiency benefits of some contemplated investments may not be readily justifiable through business case analysis alone at a smaller scale. However, by reviewing the results of early analysis, the parties can explore the potential benefits of deployment at a greater scale, and/or opportunities for other system betterment endeavours with greater economic value proposition. The actual deliverable for a joined system automation benefits tracking framework can begin from a commitment to explore the economic benefits of a single asset type, and eventually cover a broader range of investments.

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

Similar considerations apply to the Capital-Maintenance trade-offs. METSCO noticed that unlike the previous Capital Project Justification (CPJ) framework, the newer Capital Investment Justification (CIJ) template includes a dedicated section entitled “Impact on O&A Costs.”⁴ To us, the existence of this section indicates the Applicant’s recognition of the importance of a relationship between incremental capital and maintenance work. However, the current sample of CIJs provided includes no quantified capital-maintenance trade-off considerations. While in some cases, qualitative explanations are provided, many are superficial and brief.⁵ A notable exception is the St. Andrew Distribution Upgrade CIJ,⁶ where the author quantifies the impact of two discreet parts of the project.

As an initial deliverable (considered in future applications), the PUB could direct Centra to quantify the O&A impact expectations in a standard manner across all CIJs. The next logical step could entail including the anticipated O&A cost impacts into the overall business case NPV calculations and considering (where warranted) maintenance alternatives that could defer or reduce the scope of the capital work that would otherwise be required. As Centra has acknowledged,⁷ it does not currently consider the capital-maintenance trade-offs in its planning process. In METSCO’s opinion, the current lack of capabilities in this area is a material gap relative to asset management best practices. In rectifying it over time, Centra could enhance its ability to convey the value proposition of its proposed investments to its stakeholders.

As a concluding observation, we note that several of our recommendations discussed here reference deliverables for the future proceedings. We re-iterate our

⁴ For example, PUB/CENTRA I-73-Attachment Page 235 of 370

⁵ For example, *Ibid*, p. 272 of 370, p. 264 of 370.

⁶ PUB/CENTRA I-73-Attachment Page 242 of 370

⁷ PUB/CENTRA-I-66b

CENTRA GAS 2019/20 GENERAL RATE APPLICATION

INTERVENER EVIDENCE INFORMATION REQUESTS

CAC (METSCO)

JULY 5, 2019

position that requesting these deliverables in the context of this application could be overly onerous on the Applicant in light of the proceeding's timelines. However, this does not mean that the PUB could not contemplate capital cost reductions in the current proceedings based on the insights related to this area. While quantification of efficiency benefits or calculation of capital-maintenance trade-offs represent specific deliverables, METSCO identifies them in our report as the examples of the general *types* of evidence that Centra could be reasonably expected to consider internally and produce externally when seeking capital cost increases. Having not done so, it is our opinion that the Applicant has not provided the PUB with sufficient confidence that the Test Year capital forecasts are reasonable to be approved as filed.