

MEMORANDUM

To: Josh Wasylyk, Valerie Bennett, Ontario Energy Board
From: Cliff McDonald, Phil Mosenthal, Optimal Energy Inc.
Date: September 15, 2020
Subject: Final Scope of Work

Below we provide a final updated scope of work with a few revisions as discussed at the kick-off meeting and in subsequent comments.

COST RECOVERY AND PERFORMANCE INCENTIVE WORKPLAN

The project will start with a kick-off meeting between the Optimal research team and the OEB team to review the scope of work and ensure that all goals of the OEB are integrated into the workplan. Because the project must be completed under the tight two-month timeframe that the OEB has specified, the Optimal team proposes that this meeting occur in the first week of the project. The Optimal team will develop a draft agenda prior to the meeting for review by the OEB, and then revise the agenda based on comments from the OEB team. We note that given the expedited timing of the project and current Covid-related travel and gathering restrictions, we anticipate that all meetings will be virtual. However, if in-person meeting is possible and the OEB desires such, we will travel to Toronto for the kick-off meeting and / or the final presentation. We are confident our systems for and facility with remote video meetings will serve the project well if necessary. During this pandemic, we have assisted some of our clients in facilitating public meetings via videoconference.

In addition to specifically addressing the work plan, we anticipate this meeting will be an opportunity for Optimal to hear directly from key OEB staff on the current context and history of gas DSM policies and activity, specific concerns or policy priorities that the OEB is interested in that might inform our ultimate recommendations, issues around stakeholder perspectives if relevant, and other areas which the OEB believes will inform our research and thinking around different policy nuances.

Within three business days of the meeting, the Optimal team will provide an updated work plan for review by the OEB. Pending OEB approval, these will become the final versions, with any modifications discussed in the meeting. The draft Work Plan and Table of Contents for this report are given in Task 2 below.

Deliverable

- Final Cost Recovery and Shareholder Incentives Report Work Plan

COST RECOVERY AND PERFORMANCE INCENTIVE REPORT

We will begin our research by doing a comprehensive search of all the major jurisdictions in North America that use amortization or other innovative approaches that diverge from standard contemporaneous recovery. We will also identify leading jurisdictions and utilities that provide performance incentives. Once these jurisdictions are established, we will compile and review documentation on those approaches, likely including, but not limited to: Commission Orders, DSM Plans, testimony or other related documents, as well as more general research, analysis, and white papers that are publicly available. Because we are currently engaged in an effort in New Hampshire to consider a switch to an amortization model for cost recovery, and have just recently completed design of a cost recovery and performance incentive framework for New Jersey, we are already familiar with many approaches, in these states and others.

We applaud the OEB for undertaking this study, and for approaching both cost recovery and shareholder performance incentive design holistically. The concepts of amortization and performance incentives can be—and often are—viewed as integrally linked. This is because many amortization models provide a shareholder return on the unamortized balances. As such, they arguably already provide a shareholder incentive. However, there is no reason they must be coupled at all, as many stakeholders erroneously assume. We believe each should be considered on its own merits, but in an integrated and coherent fashion with a systems approach to design that accomplishes all key policy objectives. This may well lead to a combined mechanism; but perhaps not. We believe a key attribute of good performance incentive design is just that; that it reward *performance*, and not just *investment*. This is because the goal is not to spend extra ratepayer funds, but to capture the significant and important societal benefits for Ontario. The report will include analysis on how various performance incentive design aspects may reward investment or performance, and give detailed recommendations for Ontario.

Under an amortization approach modeled on major supply-side infrastructure where a shareholder rate-of-return is simply applied to the investment, the performance aspect of shareholder earnings is lost, and it can encourage wasteful spending. There are models that effectively combine both, such as is currently used in Illinois, and for which Optimal played a key role in the design and application (including assisting in development of legislation, and negotiating and developing specific policies and practices to put into practice). These amortization mechanisms can still model approaches in a similar fashion to supply-side approaches—helping to put efficiency and supply resources on an equal footing—while varying the standard rate of return based on actual program performance. The report will describe how this functions in jurisdictions using the approach, as well as other effective models that simply treat amortization and performance incentives as completely independent mechanisms. Optimal also helped to design and negotiate this type of approach, working with numerous stakeholders, in Missouri. Under this model, the utilities only collect true carrying costs on all amortized funds, based on their actual costs of short-term debt, while having a completely separate performance incentive mechanism that rewards them for savings achieved and a few other metrics. This can offer the benefit that the cost recovery does not accumulate as large an additional revenue

requirement over time, while still effectively incentivizing the utility to strive for exemplary performance.

In our review of other amortization and performance incentive mechanisms, we will consider a variety of key variables. For the amortization piece, these can include, but are not limited to: recovery term, interest (or return-on-equity) rate, effects of tax deferrals and / or asset depreciation. We will also include a discussion on how utility earnings from amortization may compare to those from supply side investments. These are all important variables that drive differences in rates, total revenue requirements, and the stream of cash flows, between amortization and full contemporaneous recovery (expensing).

In addition to cost recovery models, Optimal has done a lot of analysis on how to structure shareholder performance incentives to best align utility incentives with the state or provincial policy goals and the interests of ratepayers, key stakeholders, and the broader economy. As mentioned, because of our extensive history of engagement on performance incentive mechanisms in many leading jurisdictions (including Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, Rhode Island, and Vermont), we will begin our research with a deep understanding of the important issues, design nuances, and unintentional perverse incentives that can undermine key policy goals. After consultation with the OEB on its goals and interests, this base of knowledge will help efficiently guide the research by focusing on the most fruitful models or areas of interest. Further, because we have generally had long-term engagements in many of these states, we also have a strong understanding of how the various performance incentive mechanisms, metrics, and financial amounts have worked in actual practice to motivate program administrators, and which ideas have not been as effective. For example, we have seen how poorly designed approaches can create strong “perverse incentives” that actually end up encouraging program administrators to undermine key policy objectives. The final report will discuss some concrete, real life examples of positives and challenges posed by performance incentives in other states. At the same time, we have developed approaches to guard against that, either through the actual framework, or potentially with other policy mandates. Guiding our research on the performance incentive framework, we will consider the advantages and disadvantages of issues such as:

- The regulatory context, history of program administration and utility management, and relative necessity for additional financial motivation to encourage exemplary performance
- Appropriate levels of target financial awards and / or penalties, including whether they are tied to performance outcomes, spending levels, planned budgets, or something else
- The impacts (both positive and negative) of inclusion of financial penalties, either in lieu of, or in addition to, financial awards
- Identifying, and ensuring the avoidance, or effective management, of any undesirable implicit incentives that may result (e.g., a savings metric may over-encourage “cream skimming” or minimal investment in low-income programs)

- The use of trigger points, such as threshold and exemplary deadbands around goals, to allow or deny earnings or penalties
- The use of one, a few, or many metrics
- The use of “minimum qualifying metrics” that must be met before a utility is eligible to earn any performance incentive, even if it has met or exceeded other metrics with specific funds allocated to them
- Pay-for-performance approaches in which earnings scale with every unit of savings or net benefits with no dead-bands
- Scalability of incentives, and scaling is linear or in a variable fashion
- Timing of awards and payouts, and cost recovery of the performance incentives, and approaches around reconciliation true-ups

Through our long-term engagements we have seen first-hand how effective performance incentives can be when designed well. For example, we have worked in Illinois under both traditional expensing with no shareholder incentives, but some penalties (which still exist for the gas utilities), and then through the transition for electric utilities to an integrated amortization and shareholder earnings on performance approach. Through our extensive and on-going engagement and relationships with the investor owned utilities, we have witnessed how utility senior management have responded in real-time to the new paradigm, and the report will discuss how details of performance incentive may impact management’s approach to energy efficiency.

In addition to research on the various mechanisms, how they work, and the pros and cons of different design options, we expect to do some limited quantitative analysis to help inform decisions. This will primarily focus on analysis of the actual rate impacts and total revenue requirements, by year, that ratepayers would be exposed to under different amortization approaches and likely program scenarios, but may also incorporate recovery of any performance incentives as well. We will likely also analyze the overall cost exposure and range of possible performance incentive award and / or penalty outcomes. We believe a full understanding of the actual impacts to ratepayers, both in nominal and net present value terms, for each year of any likely period of continued programs and cost recovery, is critical for both the development of our recommendations and for the OEB to understand and assess the relative merits of different options. We have recently completed an analysis of amortization versus expensing in New Hampshire and can leverage that model to ensure the OEB maximizes the value it gets for the budget. That analysis included a detailed consideration of how U.S. regulators treat accumulated deferred income tax liabilities (“ADIT”) and its impact on rates, which in the U.S. is a critical benefit of amortization that must be thoroughly understood and is often ignored by analysts. We will investigate with the OEB exactly how any deferred taxes might impact costs, and if so, how they are treated (and any other pertinent accounting practices), as we believe there likely are ratepayer benefits that will accrue in Ontario as well.¹

¹ Our understanding, based on a review of the OEB *Accounting Procedures Handbook for Electricity Distributors* (December 2011), is that deferred income taxes related to utility assets and shareholder equity will likely have an impact on rates, but not necessarily in the same fashion as is typical of U.S. utility accounting practices.

As our primary research develops, Optimal will regularly check in with the OEB to discuss preliminary high-level findings and recommendations to ensure our ultimate report effectively meets the needs and interests of the OEB. We will then write a draft report, and submit it to the OEB for review and comment. Once this draft is submitted, Optimal will meet with the OEB and other stakeholders to present and discuss the findings and recommendations. We expect to receive comments at this meeting, as well as more formal written comments from the OEB. We will update the draft report as necessary and submit a final version.

Deliverables

- Draft for the Cost Recovery Approaches and Performance-based Shareholder Incentive Models Report
- Final for the Cost Recovery Approaches and Performance-based Shareholder Incentive Models Report
- Presentation of Report Findings and Recommendations

COST RECOVERY AND PERFORMANCE INCENTIVE SCHEDULE

	Week of									
	3-Aug	10-Aug	17-Aug	24-Aug	31-Aug	7-Sep	14-Sep	21-Sep	28-Sep	5-Oct
Kick-off Meeting										
Finalize Work Plan and Table of Contents										
Research Other Jurisdictions										
Draft Report										
Submit Final Report										

Proposed dates for key milestones include:

- Aug 5 – Kick-off meeting
- Aug 12 – Final Work Plan and Table of Contents
- July 27 – Final Work Plan and Table of Contents
- September 18 – Draft Report
- September 23 – Meeting to discuss Draft Report
- September 25 – Comments on Draft Report
- Oct 2 – Final Report
- Oct 9 – Presentation on Final Report

COST RECOVERY AND PERFORMANCE INCENTIVE OUTLINE

1. Executive Summary
2. Introduction and Framing of Report and Issues
3. Cost Recovery Models
 - a. General Overview of Models and Guiding Theory and Rationales
 - b. Brief description of annual Expensing for Full Contemporaneous Recovery
 - i. Description
 - ii. Advantages and Disadvantages
 - iii. Implementation Details
 - iv. Jurisdictions that Use Contemporaneous Recovery Model
 - c. Amortization
 - i. Description
 - ii. Advantages and Disadvantages
 - iii. Implementation Options and Details
 1. Potential Linkages or Integration of Shareholder Incentives and Amortization
 2. Interest Rate or Rate of return
 3. Recovery Term
 - Depreciation and Tax Treatment Effects
 - iv. Jurisdictions that use Amortization Model
 - d. Table showing summary of jurisdictions – Key Demographics, cost recovery approach, and annual savings as a % of sales
 - e. Comparison of Revenue Requirements and Rate Impacts for Amortization vs. Contemporaneous Recovery
 - f. Other Cost Recovery Models (such as a hybrid approach)
 - g. Ontario
 - i. Description of Current Model
 - ii. Recommendations and Rationale for Going Forward
4. Performance Incentives
 - a. General Overview
 - i. General Models and Underlying Theory and Rationales
 - ii. One Year vs. Multi Year

- iii. Potential Metrics
 - iv. Award and / or Penalty Levels and Structure
 - v. Scalability
 - vi. Potential Linkages or Integration with Cost-Recovery Model
 - b. Approaches in Top Jurisdictions
 - i. Advantages and Disadvantages of Each
 - c. Ontario
 - i. Description of Current Model
 - ii. Recommendations and Rationale for Going Forward
5. Conclusions

JURISDICTIONAL REVIEW WORKPLAN

We anticipate that the kick-off meeting described in Task 1 will also be used to understand the OEB priorities and concerns relating to the jurisdictional best-in-class review of natural gas DSM programs. Optimal will do a preliminary review of the current Enbridge DSM plan and develop an agenda prior to the meeting that includes several issues that have been important in other jurisdictions in order to help calibrate the precise scope and focus of the jurisdictional review, and ensure that it best coincides with the OEB's interests. These issues may include:

- Any specific direction or policies the OEB has either already established or wants to pursue that will inform the desired level or aggressiveness, or any specific portfolio or program focus. For example, we understand Enbridge (including the former Union territory) is currently targeting savings of approximately 0.5 percent of annual load per year. Recent studies and benchmarking best practices would indicate achievable cost-effective savings can be ramped up to the range of 1.2-1.5 percent per year.
- To what extent supply capacity constraints (as opposed to simple annual reductions) are an issue in Ontario and should drive recommendations for the programs, and whether they are geographically specific or system-wide. This will not be a focus, but we will look at, for example, to what extent peak demand reduction for gas measures are being studied in current evaluations and used in determining measure level cost-effectiveness.
- Any specific items in the existing DSM Policy Framework that the OEB feels may warrant attention. For example, the 2015-2020 Framework includes an opt-out program under which the largest customers contribute to portfolio level overhead, but pay utilities in full for DSM activities in a fee-for-service model. The OEB may want us to survey and summarize how large industrial opt-outs are handled in other territories, or identify how anticipated future opt-out policy may dictate the ability for certain program models to be most effective or appropriate.
- Other specific items in the existing DSM Plans or performance that the OEB feels may warrant attention. These could include concerns about general DSM practices or program

evaluation results, or already identified concerns about missing markets or program opportunities. We will also explore any available recent gas efficiency potential studies that can inform specific measure or program opportunities that could be added or expanded. We will pay particular attention to effective ways to serve small C&I customers, and how to reduce freeridership in the C&I sector.

- The extent to which the OEB wants to focus on already identified specific jurisdictions model portfolios, or additional programs, measures, or delivery methods to achieve additional savings.
- Whether and how existing program elements promote other OEB policy priorities, such as integrated electric and gas programs, serving the low-income sector, etc.

We will share this draft agenda and data needs with the OEB prior to the meeting, and revise it based on comments from the OEB. Within three business days of the meeting, the Optimal team will provide an updated Work Plan and Report Table of Contents for review by the OEB. Pending OEB approval, these will become the final versions, with any modifications discussed in the meeting. The draft Work Plan and Table of Contents for this Report are given in Task 4 below.

Deliverable

- Final Jurisdictional Review of Best-in-Class Natural Gas DSM Programs Work Plan

JURISDICTIONAL REVIEW REPORT

The first step of this task will be to begin gathering information based on the OEB priorities reflected in the finalized Work Plan. We expect to perform a review of Enbridge / Union's recent DSM activities, and any relevant evaluation findings. We are generally familiar with the programs, having completed prior evaluation audits of Enbridge gas DSM programs for the OEB. We will update this information with a review of recent program plans, measures, reports, and evaluations. We will review with a particular eye toward:

- Types of programs and measures promoted
- Target markets addressed, including in terms of customer size, firmographics and demographics, as well as transactional aspects (e.g., early retirement, new construction, etc.), or geographic factors
- Historical savings impacts and net-to-gross ratios
- Measures that comprise a significant portion of overall sales
- Percent of savings achieved by sector

Once we have a thorough understanding of the current programs in Ontario, and existing policy framework and the OEB's concerns, we will look at the most successful programs and program elements from gas programs. Our long-term policy engagement in top North American jurisdictions, including Connecticut, Illinois, Massachusetts, New York, and Rhode Island, means that we are very familiar with the types of program design and delivery models needed to effectively eliminate market barriers, minimize freeridership, and achieve significant savings. In addition, through our recent engagement in New York and New Jersey, we have analyzed gas

efficiency potential and developed aggressive gas efficiency savings goals in both jurisdictions. We also have recently considered the potential for electrification in New York to mitigate significant downstate gas supply constraints.

In general, we know that specific program implementation details are incredibly important to the success of any program. For example, Massachusetts has achieved significant success achieving deep saving from custom projects with large commercial and industrial customers compared to many other jurisdictions. Based on our continuous and in-depth engagement with these program administrators to improve the program design and delivery methods since 1998 we know that much of this success is related to a number of key delivery approaches. These we be discussed in detail in the report, but include aggressive marketing and customer engagement with dedicated sales and account representative staff (who have received sales training and whose job descriptions and performance reviews specifically include promotion of efficiency); tailored marketing and sales strategies for specific market segments addressing their unique barriers; proactive energy planning with the largest customers combining one-on-one long-term customer engagement with Memoranda of Understandings outlining specific company goals and ensuring senior management buy-in; and aggressive provision of in-depth expert technical assistance to identify and promote unique custom measures. We find that poorly performing custom programs often suffer from a more reactive approach where program administrators follow the customers lead and do not effectively address these elements, with the result that custom program savings suffer from lower participation, depth of savings, and higher freeridership. As a testament to effective strategies, Massachusetts is capturing more than 70 percent participation among its largest customers *every year* (overall participation in joint gas-electric programs). In fact, Massachusetts has been so successful working with large customers that, even though Massachusetts has an opt-out option for many of these customers, customers choose to continue to contribute to the programs and take advantage of them. In some cases, customers had initially opted out, and then voluntarily come back into the programs when they realize the services and rebates they were receiving far exceed the value of their contributions. The report will include discussion of successful large C&I custom programs where opt-out or self-direct options exist but some customers have preferred to participate in the core programs, such as those in MA and IL, with Ontario's current practices.

Due to the importance of the specific implementation details, it is likely not sufficient to simply look at Ontario's program offerings and see what is missing compared to those of other top-performing jurisdictions. We will also need to look at the level of savings achieved, and review evaluation findings. For example, if Ontario's home retrofit program achieves much lower levels of weatherization savings than Rhode Island's, we will want to identify specific program elements that contribute to this difference. This will ensure that we identify a comprehensive list of programs and program elements relevant to Ontario, including both innovative programs and delivery models that Ontario is not yet doing as well as program design or implementation elements that may increase the penetration of existing measures and deeper per customer savings.

As detailed in the draft Work Plan for the Cost Recovery and Performance Incentives Report, Optimal will check in with the OEB throughout the research process to discuss preliminary findings and recommendations and ensure our ultimate report effectively meets the needs and

interests of the OEB. We will then draft the report and submit it to the OEB for review and comment. Once the draft is submitted, Optimal will meet with OEB staff and stakeholders to present and discuss the findings and recommendations. We expect this meeting will coincide with the meeting to discuss the draft cost recovery report. We expect to receive comments at the meeting, as well as more formal written comments from the OEB. We will update the draft report as necessary and submit a final version.

Deliverables

- Final Criteria and Report Outline for Jurisdictional Review of Best-in-Class Natural Gas DSM Programs
- Draft Jurisdictional Review of Best-in-Class Natural Gas DSM Programs Report
- Final Jurisdictional Review of Best-in-Class Natural Gas DSM Programs Report
- Presentation of Jurisdictional Review of Best-in-Class Natural Gas DSM Programs Report Findings and Recommendations

JURISDICTIONAL REVIEW SCHEDULE

To be determined.