

2019 Achievable Potential Study

Feedback on the Project Scope of Work

May 9, 2018

The IESO and the OEB (collectively the Project Team) presented a draft scope of work for the 2019 Achievable Potential Study to the project's Advisory Group on March 21st and on a public webinar on March 28th and invited stakeholders to provide written feedback.

The Project Team received written feedback from the following stakeholders (listed in alphabetical order, hyperlinks to posted feedback provided):

- Project Advisory Group members:
 - [Enbridge Gas Distribution](#)
 - [Enerlife Consulting](#)
 - [Ministry of Environment and Climate Change](#)
 - [Thunder Bay Hydro](#)
 - [Union Gas](#)
 - [Waterloo North Hydro](#)
- Other stakeholders
 - [ICF Canada](#)
 - [Navigant](#)
 - [QUEST](#)
 - [The Atmospheric Fund](#)

A summary of feedback received and the Project Team's responses is included below. Where multiple stakeholders provided feedback on similar subjects, the responses have been grouped together to reduce redundancy. The Project Team appreciates the feedback received and has incorporated comments where appropriate into the final 2019 APS RFP, which was [posted on Merx](#) on May 8, 2018.

Please note that the information and responses provided by the Project Team herein are for information and discussion purposes only and are not binding. This document does not constitute, nor should it be construed to constitute, legal advice or a guarantee, representation or warranty on behalf of the Project Team or the IESO.

Comment/Question	Project Team Response
Task 1: Project Plan	
<p>Project Plan asks for methodology yet implies in the scope of work how study is to be done.</p>	<p>The scope of work in the RFP outlines major tasks and deliverables. Proponents are required to recommend a methodology to complete these tasks and deliverables as part of their proposal submission. The selected consultant will outline their approach as part of detailed project plan (Task 1) that will specifically include a methodology for the analysis including key milestones, critical path and key dependencies, as well as scenarios to be considered and format of outputs.</p>
<p>Data collection for the 2019 APS should consider what has already been provided for past studies and requests to LDCs should prioritize inputs that have the greatest effect on study outputs.</p>	<p>The Project Plan will include a catalogue of data inputs and sources. Given that this study will disaggregate data by IESO zone and natural gas utility regions for the core project tasks, it is expected that the level of upfront effort required by LDCs to collect and prepare data will be less than the 2016 study. LDC and natural gas sub-sector profiles from the 2016 APS' will also be provided to the consultant.</p>
Task 2: Base Year (2017) Disaggregation	
<p>Separate out large owners/final emitters and voluntary cap and trade participants as a separate sub-sector. For this group, focus on segment-based operational approaches vs. a measure-based approach.</p>	<p>Language has been added to Task 4 requiring the consultant to recommend a methodology to identify and account for highly customized energy efficiency and conservation measures that are industry-specific or even facility-specific for sub-sectors with a heterogeneous mix of energy consumers (e.g., industrial sub sectors). The ability to separate out large final emitters from other sub-sectors may be limited by data availability but can be discussed further with the successful consultant.</p>
<p>Clarify whether the data disaggregation by zone, sector and sub-sector is mutually exclusive. There is significant variability in customer consumption, needs and access to infrastructure and programs within each of the IESO and natural gas zones. The analyses (e.g., baseline, forecasts, cost curves, potential analyses) should have a higher level of granularity (e.g., to utility distribution territories). Disaggregating data by municipalities will also support alignment with community energy and emission planning.</p>	<p>To manage the project scope, for the core tasks, base year disaggregation and forecasting will be broken out by IESO zone and natural gas utility region. The extent to which end use intensities for different sectors and sub-sector profiles are calibrated to each IESO and natural gas planning region can be further discussed with the IESO and natural gas utilities once the successful consultant is selected. A Support Services task has been added to the RFP to allow for further analyses, if required, upon completion of the core services, which could include further disaggregation of data to support policy and/or program development.</p>

Comment/Question	Project Team Response
Task 3: Reference Forecasts	
What forecasts will the consultant be expected to match or “calibrate” to in the Reference case?	Reference forecast deliverables and available data have been clarified in Task 3 and appendices.
How will the year 2018 be handled in the study given that the forecasting period will be 2019-2038?	The study scope has been expanded to explicitly include 2018.
Why do we need a 20 year forecast?	Twenty-year forecasts are needed to align with IESO forecasting and Long-Term Energy Planning among other activities.
Task 4: Energy Efficiency and Conservation Measures	
Include explicit considerations of fuel switching for the proposed scope of work.	Task 4 has been revised to clarify which fuel switching measures will be included.
Should the measures be separated by fuel source? Need a clean delineation of what conservation measures apply to which fuel source.	Language has been added to Task 4 to explicitly require that measures be mapped to applicable electricity and/or natural gas end uses.
Include consideration of the Canadian Clean Fuel Standard (CFS) as this will impact the economic potential for both conservation and fuel switching.	Assumptions around carbon intensity of fuels can be discussed with the consultant once on board.
Include transmission loss prevention and behind-the-meter generation (including electricity and thermal storage) in the project scope.	The scope of this study is only conservation and energy efficiency measures.
IESO and OEB should consult with gas utilities to confirm whether natural gas conservation measure profiles should be at a weekly or monthly granularity.	Project Team and Advisory Group can discuss with the successful consultant to determine the appropriate time scale for measure profile development.
<p>Apply results of existing performance-based conservation programs and Cap and Trade funded projects to identify and determine ranges of costs for most effective energy efficient actions.</p> <p>Measures list should be mapped to current in-market programs including those outside of the Conservation First Framework and the local utility should be consulted to determine the actual participation rates for past programs. Program participation rates vary based on implementation strategies used at local level.</p>	<p>Evaluation measurement and verification reports prepared by IESO and gas utilities will be provided to the successful consultant, which include LDC-level data. The Project Team will coordinate with GreenON staff to understand the potential impact of their programs on conservation and energy efficiency potential. The Project Team and Advisory Group can discuss with the consultant whether additional data is required to understand existing program performance.</p>

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Task 6: Economic Potential	
Explicitly consider co-benefits as individual terms and not an overall combined assessment when evaluating conservation opportunities.	Non-energy impacts (NEI) are currently being studied by the IESO as part of the Mid-Term Review and the IESO and OEB are working to align their future NEI assumptions as part of this work. The inclusion of non-energy impacts in the APS will be consistent with the direction from the Minister of Energy for cost effectiveness evaluation.
Will cost calculations be based on TOU avoided costs? If so, how many TOU periods are required/ preferred?	The Project Team and Advisory Group can discuss with the successful consultant to confirm what level of avoided cost data is available and appropriate to use.
Task 7: Achievable Potential	
All savings should be presented as gross savings net of natural conservation but not of the Net-to-Gross (NTG) factors. The utilities and LDC's must have visibility into any NTG assumptions used.	NTG ratios are considered as part of the design and evaluation of conservation programs but are not included in the scope of this study. Achievable potential results will reflect savings with the impacts of existing and planned future codes and standards, the persistence of historical conservation program savings, and naturally-occurring efficiency changes removed.
Clarify achievable potential scenarios. Consider the following budget scenarios: 100% higher than 2020 budget levels, 50% higher than 2020 and 50% lower than 2020. Additional funding overtime from GreenON must be captured within the APS.	Achievable potential scenarios will be confirmed in consultation with the successful consultant.
Task 8: Whole Building Benchmarking	
The measures-based approach fails to account for rapidly changing technology, behaviours and operating conditions under which sectors and sub-sectors conduct business. Energy efficiency and conservation policy and programs should be based on actual electricity, natural gas energy savings potential and GHG emission reductions calculated using historic building energy use data and best practices.	A new task has been added to the RFP to test a whole-building benchmarking approach to determine the achievable potential for one sub-sector. The whole-building benchmarking approach will leverage actual energy consumption data collected on existing buildings from one commercial or institutional sub-sector to develop realistic achievable energy savings for other buildings in that sub-sector.
Task 9: Marginal Abatement Cost Curve (MACC)	
The MACC should be calculated to show the carbon price at which measures become economic and not have forecast carbon price built in. The MACC should also be calculated over the lifetime of the measure rather than limited to 10 years.	These aspects are to be discussed in further detail once the consultant has been selected, based on their recommended methodology and the intended purpose and multi-year use of the MACC.

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<p>MACC should take into account the current economic position of different industries, which affects the ability to participate in programs.</p>	<p>The economic position of different industries is considered in the development of the reference forecast and achievable potential scenarios. The consultant will be asked to ensure the MACC also considers these factors.</p>
<p>MACC analyses should not be included as part of the scope of work. Without an understanding of baseline spending of Cap and Trade proceeds, the consultant will not be able to calculate marginal cost of energy efficiency. MACCS developed as part of the 2019 APS (using 2017 base year data) will be too out of date to be used to inform gas utility Compliance Plan activities for the 2020 Compliance Period.</p>	<p>As noted in the OEB's Cap and Trade Framework, the OEB is responsible for undertaking the development of a MACC at the beginning of each three-year Cap and Trade Compliance Term. Since the APS and MACC rely on much of the same data, developing the MACC as part of the APS allows for a high quality product at a lower cost to ratepayers. The OEB will determine if additional updates to the MACC are required prior to the start of the next compliance period (January 2021), based on changes to the economy, market, etc.</p>
<p>Task 10: Sensitivity Analysis</p>	
<p>Clarify "net peak demand impacts". What is the "net" and does it refer to peak hour demand or peak day demand?</p>	<p>Language has been revised to clarify that this is referring to peak electricity demand impacts.</p>
<p>Task 12: Project Management and Stakeholder Engagement</p>	
<p>Describe the stakeholder review cycle. Is there a stipulated time for stakeholders to review?</p>	<p>The consultant will present each task's deliverables to the Advisory Group and will also deliver quarterly public webinars to provide updates and seek input where appropriate. Stakeholders will have a minimum of five business days to respond to materials presented.</p>
<p>Dynamic APS model</p>	
<p>Create a dynamic conservation potential model that can be regularly updated as new data become available. Conduct dynamic scenario analysis to optimize energy and emissions reduction forecasts.</p>	<p>Dynamic APS Model task has been added to the RFP as an additional service that may be requested by the Project Team.</p>
<p>Consider a retainer agreement where the consultant will carry out any additional scenario analysis on behalf of the Project Team.</p>	<p>A Support Services task has been added to the RFP to allow for further analyses if needed, which could include development of alternate scenarios or other updates to modeling.</p>
<p>Will the models and tools from the Final Report be available for public use?</p>	<p>An overview of the materials and tools that will be included in the final report will be outlined as part of the project plan (Task 1).</p>

Comment/Question	Project Team Response
Other comments	
Define who the intended audience is for the final report.	Audience includes Ministry of Energy, IESO, OEB, natural gas utilities and LDCs, other stakeholders and the interested members of the public. Project objectives identify anticipated study uses and applications.
What are the key study milestones, expected budget and available data?	See RFP document.