

Memo to:

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Ontario Gas NTG Evaluation Kickoff Meeting Items

This memo memorializes the discussions of unresolved parking lot items from the 2014 Ontario Gas Net-to-Gross Evaluation kickoff meeting. It is intended to identify which of the items were resolved, assigned (action items), or discussed, but ultimately re-tabled at the meeting (parking lot items). The initial Parking Lot items, DNV GL and TEC takes are retained for context (in grey).

Parking Lot Items Discussed

Several Items at the kickoff meeting were discussed but ultimately tabled without a resolution. The “DNV GL Take” below has the evaluation team’s initial thoughts about how each issue should be addressed, while the TEC Take provides the TEC’s consensus prior to the follow up meeting.

1. *How much contact should the evaluation have with program staff regarding specific projects?*

- The utilities would like the evaluation to meet with program staff to discuss the specifics of all projects, not just the specific large or complicated ones or the ones we deem need additional information.
- Other TEC members worry that too much contact with the utility reps will lead to a biased evaluation.
- *DNV GL Take* – For complex projects, understanding the timing and specifics of the program’s interactions with the customer provides the evaluation with the ability to tailor questions prior to the core attribution sequence to the specific customer experience. These custom questions will be phrased to remind the customer about the interactions, while being careful not to bias the customer’s responses to the core attribution questions.
 - The TEC is not in a position to provide endorsement on this point at this time. Discussion with DNV is required.
- TEC Take:
 - DNV should determine the extent of contact it requires with utility program staff, in order to be fully informed on the customer’s relationship with each utility prior to

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- conducting the Net to Gross survey, given the complexity of the project and the contents of the project files. DNV will follow up as required with the utilities.
- Discussion with DNV is required on the highlighted issue above regarding tailoring questions to remind customers about their interactions with the utility.
 - June 11 Follow up discussion results (not discussed on July 16):
 - **TEC Action Item:** TEC to discuss guidelines for framing¹ questions and usage of information from program in probes. Decision required prior to survey instrument development.
 - Open questions on usage of
 - framing questions to remind customer of decision making process
 - program-supplied information in framing question-related probes
 - Rationale for questions and scoring to be provided with survey instruments once drafted.
 - Notes for consideration:
 - Specific questions and probe instructions will be reviewed by TEC prior to fielding interviews. Initial decision for TEC is whether or not the general approach is acceptable.
 - Important to remember that this section of the interview is not part of the scoring algorithm. It is intended to help respondents recall a project and process that may have occurred a few years ago. It is not intended to push the participant into giving more credit to the program than they would if we asked the NTG questions when the decision was fresh in mind. Aiding participant recall through framing questions attempts to remove an aspect of self-report surveys that can potentially bias results against giving programs credit for the decision to install EE equipment.
2. *Can the evaluation determine which portions of the attribution were due to financial incentives, which were other services, etc?*
- *DNV GL Take* – The proposed attribution approach and the current scope of the evaluation does not allow for proportionally assigning attribution credit to different program influences. Attribution is also not a zero sum game: both technical and financial assistance may be necessary for a project to proceed; the absence of either one could be enough to prevent a customer from going forward. The surveys and interviews will gather qualitative information about the influence of different program activities on projects. The evaluation will report these (anonymized) responses relative to the final attribution scores in order to provide the TEC and programs some feedback in this area.
 - *TEC Take:*
 - The TEC would like DNV GL to gather and report on qualitative information about the influence of different program activities on projects to the extent that can be done within the defined project scope and budget.

¹ Framing questions are those that remind the customer of the decision-making process and are not used in the attribution scoring.

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- The related item of the construct of the raw data and whether or not it will be shared requires discussion with DNV.
- June 11 Follow up discussion results (not discussed on July 16):
 - TEC Take #1 resolved
 - TEC Take #2 tabled
 - Notes on TEC Take #1 decision:
 - DNV GL to include qualitative discussion in text of participant-reported reasons for results describing NTG and spillover analysis results. Qualitative information will be provided with context such as number of respondents who provided a given reason.
 - Some open-ended responses will be scrubbed and provided in report to add context and support to the results.
 - Potential TEC or utility interest in later additional analysis using the data collected
 - Notes on TEC Take #2 discussion:
 - Data must be anonymized before delivery to TEC
 - Decision to be based on usefulness and cost
- 3. *Do we want to make a concerted effort to talk to self-direct customers who only spent a portion of their incentive money? As opposed to customers who used it all because they lose it otherwise.*
 - *DNV GL Take* – Assuming that data on this topic is available to the evaluation and categorizing customers by proportion of incentive money spent is straightforward, the evaluation could potentially stratify based on this metric, or not stratify based on it but still attempt to report results for each group separately. Stratification by a categorization allows the evaluation to ensure that one group is not over-represented in the final weighted results, given the potential that there are meaningful NTG differences based on this categorization it likely will make sense to stratify by it if possible.
 - TEC Take:
 - The TEC agrees that the sample for Union's self-direct customers should be representative of the entire self-direct program, including both self-direct customers who spent all their allocated funds and those who spent only a portion of them. The TEC will defer to DNV's expert judgment regarding whether stratification based on this variable is appropriate to maximize the accuracy of a NTG for the entire program.
 - DNV should also note that a portion of Union's self-direct funds were not used by customers to which they were initially allocated. Those unused funds were then dispersed via an aggregated pool approach where projects were supported based on their lifetime natural gas savings and cost effectiveness. Again, the TEC will defer to DNV's expertise regarding how to best incorporate NTG impacts from the aggregate pool approach into an NTG for the entire program.
 - June 11 Follow up discussion results: Resolved
 - DNV GL to use expert judgment in making decision
 - Final stratification to be representative

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- The aggregated pool approach may change participant behavior in terms of what measures they do when
4. *The utilities report lifetime savings; should the evaluation use a dual baseline net-to-gross calculation? If so, how will the evaluation determine existing efficiency baseline savings without doing the full verified gross savings calculation process?*
- *DNV GL Take* – If the program tracks dual baseline savings, the evaluation could use the information in our net-to-gross calculations. Otherwise, we might be able to use another approach, such as assuming a ratio of the difference in savings from the dual baselines based on another study.
 - TEC Take:
 1. The 2008 Summit Blue Free Ridership Study accounted for advancement through the concept of partial free ridership. Thus, the utilities do adjust savings for advancement but do not take a dual baseline approach. The TEC would like to discuss with DNV the alternative approaches.
 2. This item requires discussion with DNV to determine the implications of this for the NTG study. Note that the utilities are about to face a new DSM Framework in 2015. We do not yet know how goals will be set in that framework. It is possible that they will be set differently than the current lifetime savings (CCM) approach. Thus, we would like to know if it would be possible to adjust an NTG result computed for a CCM metric to a TRC metric if such a change was necessitated by a change in the DSM framework? Is DNV able to do a lifetime and annual calculation?
 - June 11 Follow up discussion results: Not Resolved
 - **DNV GL Action Item:** DNV GL to provide simplified explanation of the two approaches and the pros and cons of each.
 - **TEC Action Item:** TEC to decide whether to pursue both methods, or select one. Resolution needed prior to starting analysis.
 - Providing both LCNS and Y1NS results is relatively straight forward, however using LCNS for these programs would require a general rather than specific estimation approach for dual baselines, making it less accurate than its original intended design
 - July 16 Follow up discussion results: Resolved
 - Study will use Y1NS method with lifetime savings
5. *There is dissention about when influence occurred and what it means for NTG, largely around projects that receive incentives and are free riders in the current program year but were not free riders when they participated the first time in a past program year. How many historical program years should be taken into account by the study in determining NTG?*
- *DNV GL Take* – This is a crucial question for the evaluation. What type of NTG are we measuring? If the study is intended to capture current program effects then a short time horizon should be used in framing questions for customers and vendors. If the study is intended to show the cumulative effect of the programs over time, then a longer time horizon should be used and past program participation and the effect of that participation on recent within-program projects should be taken into account. The surveys can be designed to capture either type of NTG, but we do not recommend attempting to capture both the

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current program and cumulative program versions of attribution and spillover at once: this would result in longer, more confusing surveys for customers. This is a critical item to resolve prior to developing survey instruments and interview guides. The decision as to which NTG type to pursue is ultimately a policy decision that may come down to the intent of the Ontario Board of Energy's definition of Net-to-Gross.

- **TEC Take:** The TEC is not in agreement on what type of NTG the study is measuring (cumulative program effects vs. current program effects). In the absence of both TEC consensus and direction from the Ontario Energy Board, would it be possible in the current budget and scope to calculate the NTG both ways capturing both current and cumulative effects? During discussions, the TEC considered the issues of:
 - Long life cycle projects versus projects of a repetitive nature;
 - The continuous improvement focus of the custom program design;
 - Asymmetrical treatment of accounting for utility influence and savings using a short term approach; and
 - Projects in which the lifetime claim accounts for all behaviours and years versus those projects that do not.
- June 11 follow up discussion results: Not Resolved
 - **TEC Action Item:** Decide which approach is preferred or whether surveys and interviews should attempt to capture both types of program effects. Decision required prior to survey instrument development.
 - Specific program activities that influenced the project we're looking at in this program year are taken into account no matter when they had influence. This applies primarily to the long life cycle projects.
 - Both types of program effects are important. Capturing both is interesting and also allows flexibility if OEB later decides in favor of one approach over the other.
 - Potentially could capture both types for specific projects or project types where the difference is likely to be greatest (recurring O&M for instance)
 - Deciding on one or the other prior to reporting is important to avoid higher stakes debates once results are known
- July 17 Follow up discussion results: Partially Resolved
 - TEC approves capturing long sales cycle program effects in estimation of free ridership
 - **TEC Action Item:** Continue discussion of how to capture "in program" spillover: projects rebated in current year that were free riders based on current year program effects, but attributable to prior program participation. Consensus appeared to be that the study should capture these effects as an incremental portion of net savings so that it can be removed if need be. How to label these savings is also unresolved.
- June 9 2015 Subcommittee meeting results: Resolved (pending broader TEC approval)
 - Subcommittee recommends that the primary objective of the free ridership estimation will be to capture the effect of the program(s) on the current project. (We call this the measurement the "Primary Attribution" below.) The effect on the current

- project of prior and indirect program experience will be captured in a secondary, less rigorous question sequence. (We call this effect “Secondary Attribution.”).
- Operationally, DNV GL proposes to capture two types of attribution that would complement one another. See examples in Figure 1.
 - Primary attribution will consider all program activities that bear directly on the current study project.
 - Secondary attribution will quantify the programs’ effect on company prior EE activity or practices that influenced the project.
 - Research questions for secondary attribution might include
 - Does your company have policies or practices regarding projects like project X?
 - How long have these practices existed?
 - How likely would your company be to have these practices by now without the program?
 - How likely would you have been to do project X without these practices?

Figure 1: Example O&M Participant Attribution

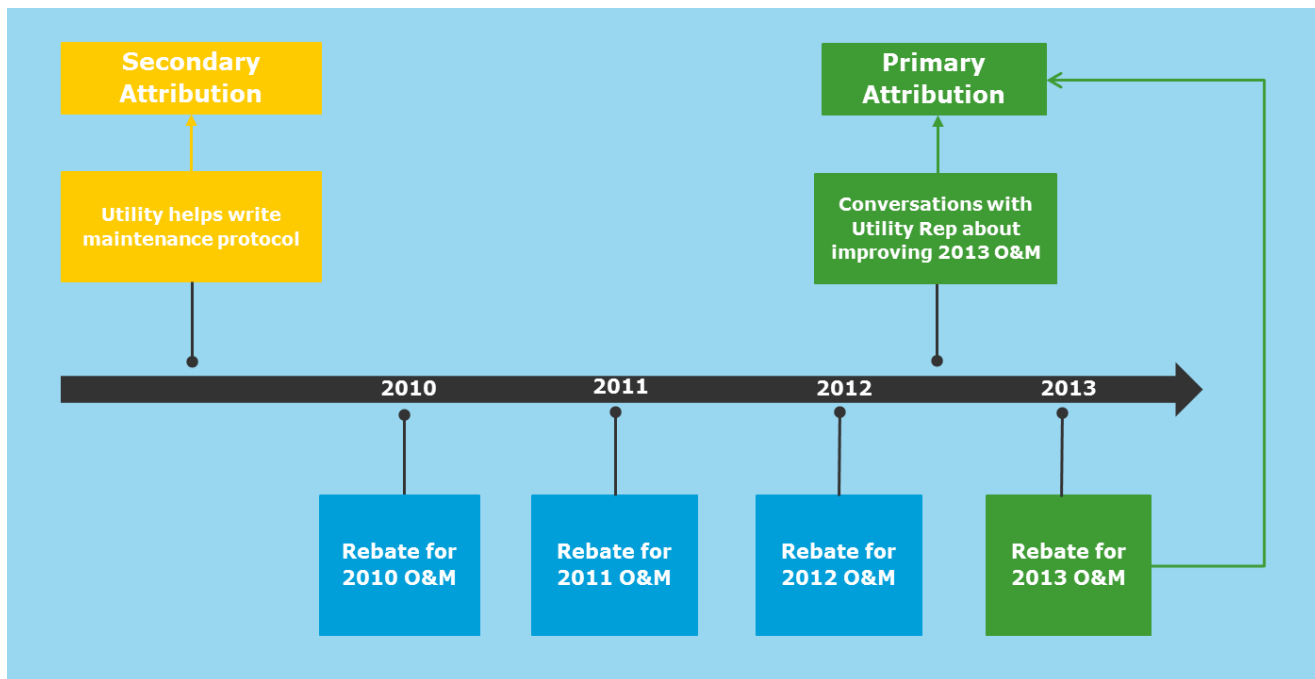
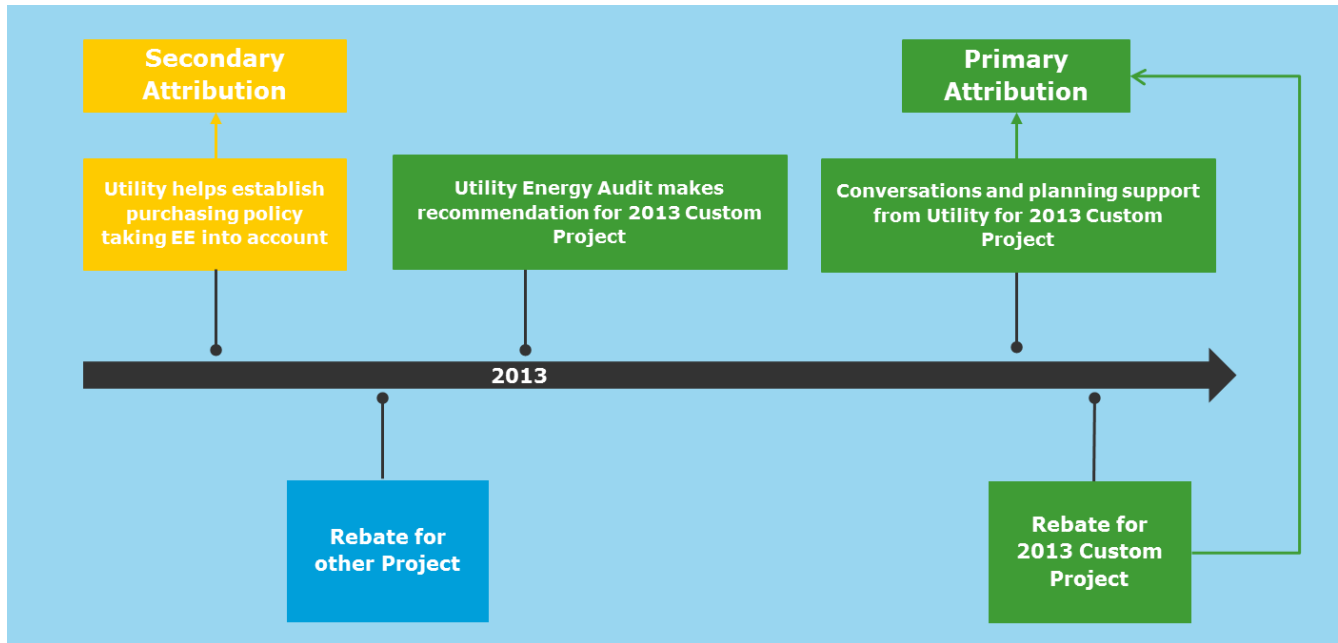


Figure 2: Example Custom Project Participant Attribution



6. Should the evaluation do spillover analysis with the large industrial customers in Union Gas' new self-direct program, even though there hasn't been much time for them to complete projects? It would give the TEC something to use going forward, even if it's understated.

- **DNV GL Take** – Most of the data collection with this group of customers is likely to be via in depth interviews (rather than CATI surveys), which offers flexibility to inquire qualitatively about spillover potential for the program going forward as well as whether any spillover has already occurred as a result of the 2013 program. Another possible option is to ask these customers about spillover from previous program experiences in 2011 and 2012, and then ask how the current program design would change the likelihood for future spillover. We recommend leaving this as an open question until the evaluation team learns more about the program and the overlap in customers in the 2011/2012 programs and the 2013 program.
- **TEC Take:** The TEC agrees to leave this as an open item until DNV has had a chance to learn more about Union's self-direct program. After DNV's review of the program, the TEC will expect a recommendation from DNV on how to perform the spillover analysis on Union's self-direct program.
- June 11 follow up discussion results (not discussed on July 16): Tabled.
 - **DNV GL Action Item:** DNV GL will recommend to the TEC a course of action for estimating spillover for the Union self-direct program once more information has been reviewed.