



Memo to:
 Massachusetts Program Administrators and Energy
 Efficiency Advisory Council Consultants

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GROSS IMPACT FRAMEWORK – DECISION GUIDE

This memo summarizes decisions related to key processes and issues that the PAs, the EEAC Consultants, and the DNV team have updated and addressed since the publication of the previous Gross Impact Framework – Decision Guide Memo in January 2022, following the implementation of the Gross Impact Evaluation Framework adopted in February 2017. Once the PAs and EEAC Consultants have reviewed and signed off on the content of this memo, we will create a consolidated memo covering recent and historical decisions, creating the next iteration in a living document that will continue to be updated with EM&V decisions made in consultation with the PAs and EEAC Consultants.

Table 1 summarizes topics and key decisions and internal cross-references to sections of this memo with more detail.

Table 1. Summary of topics addressed and key decisions

Topic	Key Decision
Ex-ante reviews and ISP studies	For some proposed projects, the PAs request ex-ante reviews so that evaluators can make recommendations for measure event types and their associated baselines. For non-unique measures, stakeholders decide what industry standard practice (ISP) studies will be conducted to provide baseline definitions for programs to use.
Custom electrification – Heat pumps	For custom electric impact evaluations, the group decided to include typical fuel-switching projects within the custom electric sample frame, but to remove heat pump electrification projects. Eligible custom heat pump electrification projects (which are identified as units >150 tons as of now but will be updated as necessary) will be scoped for a separate study using either an ex-ante or an ex-post approach, dependent upon the population of projects that come through to provide empirically based realization rates for the subset of measure.
Preliminary data for impact evaluations	For custom impact evaluations that use preliminary 2022 tracking data, the PAs will finalize 2022 custom gas and electric gross savings estimates by February 1, 2023. It was also decided that for any 2022 projects in the custom gas and electric samples, the DNV team will not communicate any preliminary results or submit draft site reports prior to February 1, 2023. The DNV team will also assess any changes to gross savings estimates between receiving the preliminary 2022 data and when numbers are locked in February 2023 for sampled and non-sampled projects.

1 DETAILED TOPICS

This section presents additional detail on each of the key decisions presented above. Where possible, we also reference the publicly available report (or other documentation) of the decision. We have also included placeholders for topics that have been identified but not yet discussed.

1.1 Ex-ante reviews and ISP studies

The objectives of ex-ante reviews and ISP studies are distinct. Measure event type and baseline recommendations made based on ex-ante reviews are project specific. An ex-ante project review does not establish a measure ISP. For lost opportunity projects, if evaluators notice similar projects are subject to ex-ante reviews and there is a possibility the proposed measure is non-unique, they will communicate with the stakeholders to determine if ISP research should be conducted outside of the ex-ante review.

The objective of ISP studies is to define baselines for non-unique measures. These studies are initiated by stakeholders through a working group structure that is led by the baseline repository team.

1.2 Custom electrification – Heat pumps

While planning the 2020/2021/2022 Custom Electric evaluation, DNV identified multiple projects under several BCR ID end uses as fuel-switching, and specifically heat pumps. These projects could typically be identified through negative electric kWh savings given the transition from fossil fuel to electric for space conditioning. DNV confirmed the identification of these projects as either historically typical (i.e. a process related measure) fuel-switching or heat pumps. This led to a discussion with the PAs and EEAC consultants to determine how to handle fuel-switching projects in the custom electric sample frame, and specifically how to treat heat pump electrification projects given the expected increase in volume for future program years.

Like previous cycles of custom electric evaluations, the PAs and EEAC Consultants agreed that non-heat pump fuel-switching projects should be included within the custom electric sample frame. This includes savings associated with the switch from electric to propane for process measures as that is currently an acceptable type of fuel switching project. Starting in 2019, applications involving fuel switching from electric to natural gas have been excluded from MA programs. Program data review has supported this as no electric to natural gas projects have been identified within the custom electric population since.

New to this cycle, DNV has identified multiple projects in the PY2020/2021/2022 custom electric tracking data that are heat pump electrification measures. These projects were screened through multiple BCR IDs such as “HVAC – Custom” or “HVAC – Custom (Fuel Switching)” but will be screened under a separate custom electrification BCR ID in the future. Through conversations with the PAs, DNV found that the identified heat pump projects were tracked as custom, but for heat pumps smaller than 150 tons, savings were calculated using prescriptive methods. The prescriptive approach uses a savings per ton to calculate energy impacts. The PAs confirmed that going forward, heat pump systems that are smaller than 150 tons will go through the prescriptive program and not the Custom – Electrification measure. Given this information, and the fact these heat pump projects would not be representative of true custom heat pump projects, the group decided to exclude these projects (for units <150 tons) from the custom electric sample frame.

Given this new gap in evaluation of custom heat pumps, it was decided that a separate study be established to estimate an empirically based realization rate for this subset of measure. A new “Custom Electrification” impact evaluation is currently being planned and is expected to provide results that feed into the 2024 plan year.

Next steps:

DNV will work with the PAs and EEAC Consultants to scope a separate evaluation specifically for eligible custom heat pump electrification projects (units >150 tons). This project will use either ex-ante (which may use untraditional methods such as pre implementation EM&V) or ex-post methods, based upon the present population of measures to provide

empirically based realization rates usable for program year 2024. Methods and approach will be discussed more within the project workplan.

1.3 Preliminary data for impact evaluations

Beginning in 2022, evaluation study results will no longer be applied retrospectively to the prior year's claimed program savings, but prospectively to the plan year report. For custom impact studies, which mostly rely on on-site measurement and verification, this change has introduced more of a lag between project implementation and application of evaluation results. To partially address this increased lag, the custom evaluation teams have worked with the PAs to leverage the most recent custom projects available at the time of sampling. For the current PY2020/2021/2022 custom electric impact evaluation, the non-summer dependent sample will leverage program data from Q1 and Q2 of 2022, in addition to 2021. Likewise, the upcoming PY2021/22 custom gas impact evaluation will do the same.

The 2022 tracking data that will be used to develop sample designs for each study is still considered preliminary in that it has not had the opportunity to go through the full QC process that the PAs perform each year. Typically, impact samples are drawn following the completion of the program year. The consequence of using this preliminary data is that that evaluation could provide results and feedback on projects that the PAs have not completely finalized, which could introduce increased risk of bias to the process.

The evaluation group, including the PAs and the EEAC, met to discuss options to mitigate this risk. The following steps were agreed on to address this concern:

1. PAs will finalize 2022 custom gas and electric gross savings estimates by February 1, 2023.
2. For any 2022 projects in the custom gas and electric samples, the DNV team will not communicate any preliminary results or submit draft site reports prior to February 1, 2023.
3. The DNV evaluation team will also work with the Data Management team to identify any changes to gross savings estimates between receiving the preliminary 2022 data and when numbers are locked in in February 2023. DNV will review changes for sampled and non-sampled projects. DNV will perform this same check one additional time following receipt of final QC'd 2022 data, which will likely be available in summer 2023.

Depending on the outcome of the planned analysis in step 3, the evaluation group may revisit this approach in future years.

1.4 Glossary of terms and acronyms

DNV is developing and maintaining a glossary of terms and acronyms. The glossary specifies the definitions of terms and acronyms used in deliverables. The glossary is intended for use as a reference document and will be updated as necessary when new terms are defined or when definitions of terms are changed. The glossary is a living document, in Excel format, accessible to the PAs and EEAC through SharePoint.¹ DNV will work with the PAs and EEAC to ensure relevant terms and acronyms are included in the glossary.

¹ A static version of the glossary of terms can be emailed to stakeholders upon request.