

DRAFT Procedures and Protocols

Ongoing C&I Industry Standard Practice Research & Repository Upkeep

Study number - TBD

Date: July 28, 2020





Table of contents

1	INTRODUCTION.....	1
2	PROCEDURES AND PROTOCOLS	2
2.1	Application of the Repository	2
2.1.1	Referencing an Alternate Baseline	2
2.1.2	Baseline Adjustments During Evaluation	3
2.2	Frequency of Updates to the Repository	3
2.3	Communicating Updates	4
2.4	Effective and Next Revision Dates	4
2.4.1	Effective Date	5
2.4.2	Next Revision Date	5
2.5	User Feedback	5
2.6	ISP Research and Prioritization	6

1 INTRODUCTION

The purpose of this document is to provide structure for the procedures and protocols surrounding the newly established MA Baseline Repository. Ensuring that good documentation is in place to be referenced throughout the life and upkeep of the Repository will be one key factor for success. This document will serve as a framework for regular updates that will occur throughout the lifetime of the Repository as well as the use of the Repository itself. We have outlined the following procedures in this document:

Protocols for Repository use:

- **Application of the Repository** – Both implementers and evaluators will reference the Repository; this describes basic rules surrounding everyday use.
- **Effective and next revision dates** – Each vetted measure in the Repository will need an effective date (the start date when the baseline is considered to be valid) and a next revision date (the general timeframe at which the measure baseline needs to be revisited).

Protocols for Repository update:

- **Update calendar** – The frequency of updates to the Repository will balance the importance of sharing the most up-to-date information with the administrative and communication challenges of too-frequent updates to the content. This document provides guidelines for that process.
- **Off-cycle updates** – While standard updates will happen annually, some allowances will be made for important updates to happen outside of that normal annual cycle.
- **Vendor feedback** – As Repository use increases, we anticipate that users will have feedback on the technical content, structure, or other aspects of the Repository. This document outlines a process for users to provide feedback in a manner that can be reviewed and addressed as necessary.
- **ISP research prioritization** – The ultimate goal is to continue to grow the known library of measure ISPs. This document outlines the process for identifying and prioritizing measures on an annual basis in order to manage the process for new research.
- **Communicating updates** – The evaluation team will also roll out a process surrounding how updates should be communicated, including by who and when the communication should occur. This document defines the roles for the varying stakeholders involved in the communication process.

2 PROCEDURES AND PROTOCOLS

This section outlines the procedures listed above.

2.1 Application of the Repository

The Repository is a reference for evaluation and implementation staff. It is intended to be a starting point for custom project lost-opportunity baselines. The information contained in the Repository is the best-known information for each measure and, as general practice, should be utilized for the measure-specific baseline when creating a custom measure analysis for a measure that is contained within the Repository.

While the information included is the best available, there are three tiers of measures based on the quality and source of the industry standard practice (ISP) research data. In order to communicate this, the Repository includes an evaluator-vetted list, an in-progress list and a provisional finding (BAG decisions, ex-ante reviews, etc.) list. The definition of measures in each of these lists is as follows:

- **Evaluator-vetted list:** This list compiles the measures where evaluators have high confidence in the baseline research. An implementer or evaluator should reference this baseline unless an alternate baseline is supported by specific, documented reasons. As noted in the Baseline Framework: "If the implementer correctly used an evaluator-vetted baseline for a measure and it is, in fact, an ISP-appropriate application, the baseline should not change as a result of the ex-post impact evaluation."
- **In-progress list:** These measures have undergone initial research; however, additional research is required before it can be considered evaluator-vetted. If a baseline is used from this list, there is a higher risk that it could be overturned during evaluation than in the case of a baseline from the evaluator-vetted list.
- **Provisional findings (BAG decisions, ex-ante reviews, etc.) list:** This list compiles measures discussed through the ongoing evaluation process, such as through BAG discussions, ex-ante reviews, or any other baseline discussions that occur and where site-specific reviews may have broader implications, this information will be updated more frequently than once per year. These measures are not considered high confidence and are for evaluator tracking purposes.

Regardless of the list a measure is contained in, evaluators recommend that the information be used unless the user performing the analysis has a specific reason to use alternative information.

2.1.1 Referencing an Alternate Baseline

It is highly unlikely that a baseline from the Repository will be overturned during evaluation if it is on the vetted list and still reasonably unlikely if it is on the in-progress list. If implementers decide to use a different baseline from the value listed in the Repository, documentation of why the Repository baseline was not appropriate should be included in the project file. Documentation should include specific information as to why a baseline is not appropriate for the facility, such as physical or other constraints that would not allow for the technology referenced in the repository could not be installed. Implementers may request an ex-ante review to confirm alternate baselines, although an ex-ante review is not required.

If a vetted baseline is not used in a project and the ex-ante baseline assumption is overturned by an evaluation, the prospective and retrospective realization rates will include the impact of the project baseline discrepancy. If an in-progress baseline is not used in a project and the ex-ante baseline assumption

assumptions overturned by an evaluation, it will impact the retrospective realization rate but may not necessarily impact the prospective realization rate.

2.1.2 Baseline Adjustments During Evaluation

If implementers utilize the appropriate baselines outlined in the relevant Repository for energy savings analyses, there is a very low probability that they would be overturned during evaluation due to new ISP findings. Evaluators will allow or default to repository baselines unless there are extenuating circumstances that provide new information that was not available at the time the measure was populated in the Repository but is relevant to the time the project was developed. Although every scenario cannot be foreseen, the following list includes some instances where different baselines may be warranted:

- **Increased program activity triggers primary research** – If a measure with historically low aggregate program savings suddenly becomes a larger contributor to program savings, this may trigger additional primary research, the result of which may reveal a different baseline.
- **Market shifts** – Unanticipated widespread technology adoption or availability may cause a technology to be more common, and perhaps even a relatively short period of time can change ISP. A scenario like this may trigger new research or may be revealed through ongoing evaluation research. Evaluators and implementers should be continuously monitoring the market for changes.
- **Site-specific information** – Measures are often installed at complex sites where operation or equipment may not reflect what is considered standard in the industry. Site-specific circumstances may not allow for a baseline to be appropriate or even possible and may require variation from the standard baseline. If this is identified through the implementers’ review of the project, it should be clearly documented and stored in the project files.

2.2 Frequency of Updates to the Repository

The Repository will be updated annually, and a new version will be released each year. This new version will be published at the close of Q1 of that annual cycle (January 1st). This is intended to align with other evaluation deliverables that typically occur in this timeframe. Below is a table that outlines the anticipated work that will occur annually in order to maintain the Repository.

Table 2-1. Annual Update Cycle

Task	Timeframe
Determine updates based on research and evaluations from previous year	End of Q4
Discuss next measures for primary research	Q1 – Q2
Conduct primary research	Q2 – Q3
Compile research drafts and prepare for update	Q3 – Q4
Compile final research	Mid Q4
Updates to BAG, Ex-Ante review lists	End of Q1, Q2, Q3, Q4

While updates will generally occur annually, the effective dates for a measure baseline may be retrospective. This is addressed further in Section 2.4.1.

Off-cycle updates. From time-to-time, significant findings will surface that have a large impact on portfolio savings, requiring an interim update. For example, if primary research reveals early in the cycle that a baseline is far off from the current value, and that measure has significant portfolio savings attributed to it, the evaluation team reserves the right to update that information as necessary to keep the Repository as reliable as possible. When updates do occur the communication protocols below will be followed. We do not anticipate these off-cycle updates to happen frequently, and if they start to, the update process will need to be revisited.

BAG, Ex-Ante and other Evaluation Measure Discussions. Measure discussions that occur through the normal evaluation process also need to be documented for reference. Generally, these discussions are specific to an individual measure or project, however they still may set a precedent or have larger implications than being applicable to just that site, measure or project. In those cases, it is important that decisions be documented for reference by the evaluation team and also the implementation team. These discussions and decisions need to be updated more frequently than the typical annual update cycle. Generally, BAG discussions happen on a monthly basis. Ex-Ante reviews do not have a standard interval, however over the last 2 ½ years there have been about 13 Ex-Ante reviews, some of which are in progress at the time of creation of this document. With these estimated intervals, quarterly updates of this list will be necessary to ensure that the contents are up to date.

2.3 Communicating Updates

The roles and responsibilities for communicating updates is described in Table 2-2.

Table 2-2. Repository Update and Communication Roles

Organization	Update and Communication Roles
DNV GL Team	<p>Circulates draft and final baselines to the EEAC Consultants and PA Evaluation Lead.</p> <p>Circulates the draft and final Repository updates with a change log to the EEAC Consultants and PA Evaluation Lead following the Table 2-1 schedule.</p>
EEAC Consultant	<p>Responsible for reviewing and approving the final Repository.</p> <p>Arranges for posting the revised Repository on the EEAC website.</p>
PA Evaluation Lead	<p>Responsible for timely notification of PA evaluation and implementation teams and any necessary updates to the MassSave website.</p>

2.4 Effective and Next Revision Dates

Effective and next revision dates will need to be established, particularly for fully vetted measures. The definition and procedure to determine each of these dates is provided below.

2.4.1 Effective Date

The effective date is the date the measure baseline takes effect. With respect to the project date, the internally tracked “tech review complete” date will be the basis for determining which repository version the project should be held to.

Individual ISP studies will research the effective date of the ISP. The effective date is likely to be backdated – that is, a date that is earlier than the publish date – but will not go back further than the current program year under impact evaluation. This date will be based on the best information the Repository team has available when the market shifted to the baseline. If no better date exists, the publish date of the baseline in the Repository will be used as the effective date.

2.4.2 Next Revision Date

Markets and ISP are constantly evolving. Therefore, each baseline will need to be revisited to determine if adjustments are necessary. The “Next Revision Date” field in the Repository is the date that the measure should be reviewed.

In order to establish this date, evaluators will use one of two methods. For measures where primary ISP research is being completed, questions surrounding the market and the pace of change will be included in the expert interviews. The responses to these questions will be used to establish the next revision date.

If the baseline in the Repository relies on secondary ISP research, evaluators will use our best understanding of the market and the measure to define the next revision date. This will include a default of 5 years if no better information exists. For measures where the recommended baseline is a reference to code or some other standard, the baseline revisit date will align with the next update of that code or standard.

2.5 User Feedback

Baselines can be a contentious issue and can have a significant impact on the energy savings associated with measures. The team has taken care in establishing the baselines that are currently listed in the Repository. That being said, throughout the use of the Repository, we expect that there will be feedback on the technical details of some of the baselines included. User feedback on Repository Baselines outlined here is meant to collect information on the overall appropriateness of the ISP and is separate from individual project alternative baselines, which should be handled as described above. This feedback should be reviewed to make the Repository as useful, up-to-date, and accurate as possible. While we may not be able to accommodate every opinion, we will consider new, defensible information. Therefore, the information below is considered the minimum requirement for user feedback to be considered:

- Measure(s) where feedback applies
- Submitters’ title, type of organization employed by, level of expertise
- Proposed baseline/modification
- Source of information for proposal
 - This will need to be more defensible than the opinion of the person submitting the feedback. Published documents, studies, or other data must be provided to support the proposed change.



This information should be emailed to a general mailbox managed by the Repository team with a clear subject denoting the feedback (Repository@ers-inc.com). The Repository team will perform an initial review of the information and will bring it to the ISP working group for discussion and consideration. The team will also add these specific instructions in the Repository itself.

2.6 ISP Research and Prioritization

A critical aspect of the Repository will be updating the information it contains. In addition to providing the best information available, it is also a tool that can be used to help prioritize measures for future research. It is not feasible to perform detailed primary research on every measure contained in the repository at once. A process for measure selection and prioritization was developed in the "*Generalized ISP Protocols*" document that was created and reviewed in 2017. This process will be followed on an annual basis to determine the next measures to be researched. Once the Repository team has gone through the process, we will make recommendations to the ISP working group for discussion. That group will then work together to decide on the measures to be researched.



ABOUT DNV GL

Driven by our purpose of safeguarding life, property and the environment, DNV GL enables organizations to advance the safety and sustainability of their business. We provide classification and technical assurance along with software and independent expert advisory services to the maritime, oil and gas, and energy industries. We also provide certification services to customers across a wide range of industries. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping our customers make the world safer, smarter, and greener.