TAME+ Detailed Energy Assessment Requirements: Review Checklist

This checklist has been developed to assist municipalities with the review of the Detailed Energy Assessment report required for participation in the TAME+ program.

In order to participate in TAME+, municipalities are responsible for commissioning a detailed energy assessment for all buildings included in the project application. The purpose of performing a detailed energy assessment with quantified greenhouse gas emissions reductions and energy savings is to provide both the participating municipality and the Municipal Climate Change Action Centre (MCCAC) accurate estimates of the cost, energy savings, and greenhouse gas reductions for a project. The assessment will help the municipality make informed decisions about which measures are best to include as part of their TAME+ project.

Detailed quantification tracking of energy performance before and after energy efficiency retrofits has many benefits:

- Accurately assess energy savings for a project
- Help municipalities maintain and improve building performance and operations
- Data can be used by grant administrators to improve energy efficiency programs
- Identification of other energy savings opportunities

For municipalities applying for funding under TAME+, it is highly recommended that a copy of the Detailed Energy Assessment Requirements document be provided to the energy assessment consultant at the earliest possible stage. This checklist is an easy way for municipalities to ensure that they have received accurate and complete information from their Detailed Energy Assessment. Further, proper use of this checklist maintains that the MCCAC receives the necessary data to approve the project with accurate rebate rates. Municipalities simply need to check off the boxes below as they review the audit information provided by the energy assessment consultant. The MCCAC recommends completing this checklist prior to sending the final application to the MCCAC so that feedback identifying edits or omissions can be provided to the energy consultant while the Detailed Energy Assessment is in the draft stage.

Review Checklist

| General Requirements: | |
|----------------------------------------------------------------------------------------------------------------------------------------------|--|
| Level of rigour comparable to ASHRAE Level II with sufficient data necessary to perform all required quantification calculations | |
| Completed by a qualified professional with a legal right to work in Canada: Professional Engineer (P. Eng) or Certified Energy Manager (CEM) | |

For each measure:

| Requirements: | Measure #: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------------------------------------------------------------------------------|-----------------------------------|---|---|---|---|---|---|---|---|
| | Title of each measure (input): | | | | | | | | |
| Measure boundary: scope of all equipment potential interactions identified | ent identified and | | | | | | | | |
| Measure baseline: description of equipmoperating parameters | nent and | | | | | | | | |
| ECM description: description of technolochanges due to ECM | ogy or operation | | | | | | | | |
| ECM measure lifetime (years) | | | | | | | | | |
| Baseline adjusted annual energy use for (and adjusted for interactions as needed | | | | | | | | | |
| ECM annual energy savings for electrici | ty (kWh) | | | | | | | | |
| ECM annual energy savings for gas (GJ |) | | | | | | | | |

| ECM eligible energy savings for electricity (kWh), =0.9*energy savings for electricity | | | | |
|-------------------------------------------------------------------------------------------------------------|--|--|--|--|
| ECM eligible energy savings for gas (GJ), =0.9*energy savings for gas | | | | |
| ECM annual GHG emissions reductions (tCO ₂ e per year) *calculated using eligible energy savings | | | | |
| All calculations, assumptions and stipulated data are clearly documented in the report or appendix | | | | |
| ECM simple payback (years) | | | | |
| ECM Baseline NPV (\$) | | | | |
| ECM NPV over life of equipment (\$) | | | | |

For the whole project:

| Requirements: | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| The building type, area (m²), and location (address) | |
| An overview of all energy systems currently in the building including a description with the age and specifications provided for all related equipment | |
| A table summarizing the annual baseline energy use, ECM energy use, and energy savings | |
| Total project annual energy savings for electricity (kWh) | |
| Total project annual energy savings for gas (GJ) | |
| Project life energy savings for electricity (kWh) | |
| Project life energy savings for gas (GJ) | |
| Project life eligible energy savings for electricity (kWh), =0.9*energy savings for electricity | |
| Project life eligible energy savings for gas (GJ), =0.9*energy savings for gas | |
| Annual project GHG emissions reductions (tonnes) | |
| Project lifetime GHG emissions reductions (tonnes) | |
| Simple payback and NPV calculations for the project as a whole (years, and \$ respectively) | |
| Project GHG abatement rate calculation (\$/tonne) including funding request and capital cost (\$) | |

Note: This checklist is intended as a tool to support a preliminary review of the Detailed Energy Assessment report. It is not a comprehensive list of all methodology and reporting requirements. For those purposes, please refer to the Detailed Energy Assessment Requirements document.

