**E2.0 Energy Management Plan Template**

**Baseline Practice**: E2.0 – Energy Management Plan

**Applicable Asset Classes**: Office, Healthcare, ESC, Universal, MURB

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| Instructions:  *All grey italic text with borders are instructions to help you prepare the required Baseline Practice for your building.*   1. *Replace all* [blue text in brackets] *in the document with building specific information.* 2. Where required, complete the necessary tasks, or engage a third-party consultant to complete the tasks so that you are able to fill the relevant sections of the template with building specific information. 3. Delete all grey italic text when you have filled all relevant sections with building specific information. 4. Complete the Checklist below to confirm your Energy Management Plan meets the Baseline Practice requirements.   The intent of this Baseline Practice is to Develop an Energy Management Plan that will act as foundation for an energy and carbon reduction. For additional guidance, refer to the [BOMA BEST 4.0 Field Guide](https://bomabestfieldguide.org/field-guide-for-sustainable-buildings/e2-0-energy-management-plan/), [ISO-50001 Overview](https://natural-resources.canada.ca/energy-efficiency/energy-efficiency-for-industry/energy-management-industry/iso-50001-energy-management-systems-standard/20405)1, [ISO-50001](https://www.csagroup.org/store/product/CSA%20ISO%2050001%3A19/)1 (or equivalent standard), and [NRCan’s Energy Management Best Practices Guide – For Commercial and Institutional Buildings](https://publications.gc.ca/site/archivee-archived.html?url=https://publications.gc.ca/collections/collection_2016/rncan-nrcan/M144-256-2014-eng.pdf)1. |

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| ***Checklist:***  *Check Baseline Practice applicability:*   * *Project must fall under the asset class Office, Healthcare, ESC, Universal, or MURB* * *Projects pursuing question E2.1a - Net Zero Transition Plan can list this Baseline Practice as “Not Applicable.” The documentation prepared for question E2.1 is permitted as a replacement for the Energy Management Plan.*   *The Energy Management Plan must meet the following requirements:*  *Energy Management Plan has been reviewed and updated within last 5 years.*  *Outline energy management going forward, including setting goals or targets in relation to the baseline or managing carbon emissions.*  *For each of the Energy Conservation Measures (ECM) listed in the most recent Energy Assessment, identify the following:*   * *Whether it will be implemented (if not, explain why)* * *The associated budget (implementation cost, savings, incentive)* * *Overview of metrics to be used to measure progress.* * *A timeline for completion (one year, five years, and 10 years)* * *The person responsible for implementation*   (***For Portfolio-wide Energy Management Plans****) Include a narrative that describes how the plan is applied at the building-level.* | |

**ENERGY MANAGEMENT PLAN**

*Helpful Tip!*

*If this is a recertification project, project teams can use the previous Energy Management Plan developed for BOMA BEST 3.0 Best Practice 3 as the base for their new policy. Project teams should keep in mind that carbon emissions targets are a new addition to the Baseline Practice, and this will have to be added to meet new Baseline Requirements.*

[Insert Building Name and / or Address]

[Insert Name of Organization]

[insert Building Description – number of floors, tenants, parking spaces (underground or surface) and other distinguishing features]

[Insert date Plan was created / most recent date it was reviewed]

Introduction and Purpose

Energy Management is an important part of building operations and maintenance management that involves the continuous monitoring and improvement of a building’s energy and carbon performance. The Energy Management Plan identifies and documents building-specific measures to improve building performance and set realistic carbon and energy targets. The development of this plan is designed to provide the foundation for a future energy and carbon reduction program to reduce the building’s impact.

Responsibilities

[Insert Name], Property Manager ([Insert Name of Organization]) of [Insert Building Name], is responsible for the following:

* Work with the relevant parties involved in the development of the Energy Assessment Report to identify Energy Conservation Measures (ECMs) and Carbon Reduction Measures (CRMs) that are feasible to implement.
* Obtain necessary capital approvals to advance implementation of ECMs and CRMs.
* Develop timeline for ECM and CRMs implementation.
* Assign responsible parties who will oversee selected ECM and CRMs implementation.
* Determine appropriate energy and carbon reduction targets.
* Define tasks required to pursue achieve energy and carbon targets.

Strategy

## Plan

[In this section, outline current energy and carbon management processes in place and discuss areas of improvement.]

1. *Review energy and carbon management processes in place at the project. Draft a narrative of what is currently being implemented and who is responsible for each measure. (Eligible practices may include energy/ carbon monitoring, high-efficiency equipment, and automated systems)*

*OPTIONAL: Fill in the modified version of the NRC’s Energy Management Balanced Scorecard attached at the end of this document. This is not a required document but can be useful understanding a project’s current energy management processes and reasonable next steps. Minimum threshold for Baseline Practice E2.0 has been highlighted in Green.*

1. *Identify areas of improvement in existing energy and carbon management processes. Draft a narrative of future aspirations for building performance. Projects should consider Scope 1 and 2 carbon emissions (ie. Refrigerant leaks, on-site combustion, and purchased energy). Projects should work towards developing an approach for assessing Scope 3 emissions (ie. emissions from fleet vehicles and service providers).*

## Energy and Carbon Management Priorities

[In this section, discuss energy conservation and carbon reduction measures that will be implemented based on most recent energy assessment.]

1. *Review the most recent energy conservation measures (ECMs) and carbon reduction measures (CRMs) identified in the most recent energy assessment.*

1. *Identify which ECMs and CRMs will be implemented. Draft a narrative describing each ECM and CRM, the associated budget with implementation, and a timeline for implementation. The party responsible for implementation of each measure should also be identified at this stage.*
2. *Populate Table above with ECM and CRM details. Example Energy and conservation measures in blue.*
3. *For any ECMS and CRMs that will not be implemented, draft a narrative of why this conservation measure was not included.*

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| **Potential Conservation Measure**  **(ECM or CRM)** | **Energy Savings**  **(kWh, kBtu, $)** | **Carbon Savings**  **(kgCO2e)** | **Estimated Net Capital**  **Cost ($)** | **Estimated Pay Back Period**  **(Years)** | **Estimated Timeline of Completion** | **Responsible Party** |
| Ex: Interior LED Retrofit Stairwells | 200,000 kWh | 5000 kgCO2e | $125,000 | 4.0 | Jan. 2028 | Building Operator |
| Ex: Install Low-Flow Aerators in Lavatory Faucets | 50,000 kWh | 1250 kgCO2e | $17,700 | 1.5 | Dec. 2026 | Building Operator |

## Targets and Goals

[In this section, discuss specific energy and/or carbon reduction goals.]

1. *Once ECMs and CRMs that will be implemented have been chosen, consider how this will impact the project’s energy and carbon metrics over the short-term and long-term.*
2. *With the building’s energy management team and the third-party consultant who completed the last energy assessment, determine a realistic energy and carbon target and a timeline for reaching this target.*
3. *Draft a narrative describing the energy and carbon goal and the timeline to reach the goal.*

Time Period

*Include signature of the team member responsible for implementing Energy Management Plan below. Examples include the Property Manager, Building owner, or Building Operator.*

This plan was implemented on [Insert Date] and will be reviewed and updated at least once every five (5) years

Signature of [Property Manager] \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: 01-Jan-2024

**Energy Management Roadmap2**

| **Lvl** | **Commitment** | **Planning** | **Organization** | **Projects** | **Financing** | **Tracking** | **Communication** | **Training** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **5** | € An energy management plan exists that has clear energy and carbon reduction targets, has the commitment of senior management, and is communicated broadly. | € A comprehensive energy management plan covers all major practice categories, defines how targets will be achieved and is implemented by all departments with full support from senior management. | € Energy management is fully integrated into the management structure with clear delegation of responsibility for energy consumption.  See E4.3 – Data Monitoring | € Identification of capital, behavioural, operational and maintenance projects, development of business cases and implementation are ongoing.  See E2.2 – Capital Plan | € Investment criteria, financing mechanisms and commitment to implement energy efficiency and carbon reduction projects are clearly defined. | € An energy and carbon accounting system sets targets, forecasts use, monitors use against a baseline and the forecast, and identifies faults. Savings are tracked at a project and system level by using submeters. Performance is benchmarked.  See E3.2a – Benchmarking Carbon Emissions  See E5.2 – Conservation Achieved | € The value of energy efficiency and carbon reduction and the performance of energy management are reported and marketed, both within the organization and outside, continuously.  See E3.3 – Third Party Recognition | € Senior management, building operators and staff or tenants are trained to fully support energy performance. |
| **4** | € A formal energy management plan exists but lacks active commitment from senior management. | € All departments are represented on the planning team with some senior management support. | € An energy committee is used as the main channel of communications along with direct contact with major energy users. | € There is formalized but infrequent identification of energy opportunities, basic business cases and implementation. | € Life-cycle costing and/or internal rate of return investment criteria are used. | € Facility-level performance is monitored against a baseline and benchmarked by using key performance indicators. Results from major projects are measured.  See E3.1a – Benchmarking Energy Use | € An ongoing program of staff and tenant awareness exists, and progress is reported through regular publicity campaigns. | € Senior management or staff and tenants have received ad hoc training. Building operators are fully trained to support energy performance. |
| **3** | € The energy management plan set by the energy manager, energy committee or equivalent has not been adopted. | € Only technical people or technical managers are involved in developing an energy management plan. | € An energy manager is in place but has no clear responsibility or authority. | € Development of energy savings opportunities is ad hoc and infrequent. There is only selected implementation. | € Investments are based on short-term or simple payback criteria only, with no consideration for life-cycle costing. | € Facility-level performance is monitored against a baseline by using utility data with ad hoc use of findings. No benchmarking is done. | € Staff and tenant awareness is occasional only and ad hoc. | € Building operators are trained to maintain major energy-intensive systems. |
| **2** | € An undocumented set of energy and carbon guidelines or procedures exists. | € One person has been delegated to develop an energy management plan. | € An energy manager is a part-time responsibility that has limited authority. | € Only informal assessments are made with ad hoc resources to identify energy-saving opportunities. | € Only low-cost energy conservation and carbon reduction measures are implemented. | € Cost reporting is based on utility invoice data. No benchmarking is done.  See E4.1a – Energy Use Tracking | € Only informal contacts are used to promote energy efficiency and carbon reduction. | € Building operators receive ad hoc training in energy-efficient and carbon reduction technologies and practices.  See E12.1 – Training in Energy and Carbon |
| **1** | € No guidelines or procedures exist. | € No energy management plan exists. | € There is no energy-related responsibility or contact between management, staff and the occupants. | € There is no mechanism or resources to identify or develop energy-saving opportunities. | € Energy efficiency and Carbon reduction investments are not pursued. | € No energy or carbon data is being tracked or benchmarked. | € Energy efficiency and carbon reduction is not promoted. | € There is no energy management or operational training. |

This rubric is not a requirement but is a helpful tool. BOMA BEST Baseline Practice E2.0 minimum requirements are highlighted in green. Levels beyond baseline that relates to additional credits have been labeled in Red.