

PROJECT NAME: Enter Project Name

OPR AUTHOR: Enter OPR Author

SBC #: Enter SBC Project Number

ASSET #: Enter Asset Number

AGENCY #: Enter Agency Number

BUILDING #: Enter Building Number

Tennessee High Performance Building Requirements: OPR

~~October 13~~

~~2017~~

May 18

2018

The OPR is a deliverable of the High Performance Building requirements and is completed for State of Tennessee Projects. This document shall be completed for all State of Tennessee projects; it is adaptable to individual project objectives and scope.

Owner
Project
Requirements
Version
1.02 Owner
Project
Requirements

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1. Owner Project Requirements Summary

The Owner Project Requirements (OPR) is a deliverable of the State of Tennessee High Performance Building Requirements which promotes the design, construction, and operation of high performance state-owned buildings. The goal of the HPBr is to embed a greater economic value within the state building portfolio through reduced operating costs, higher performance and increased sustainability.

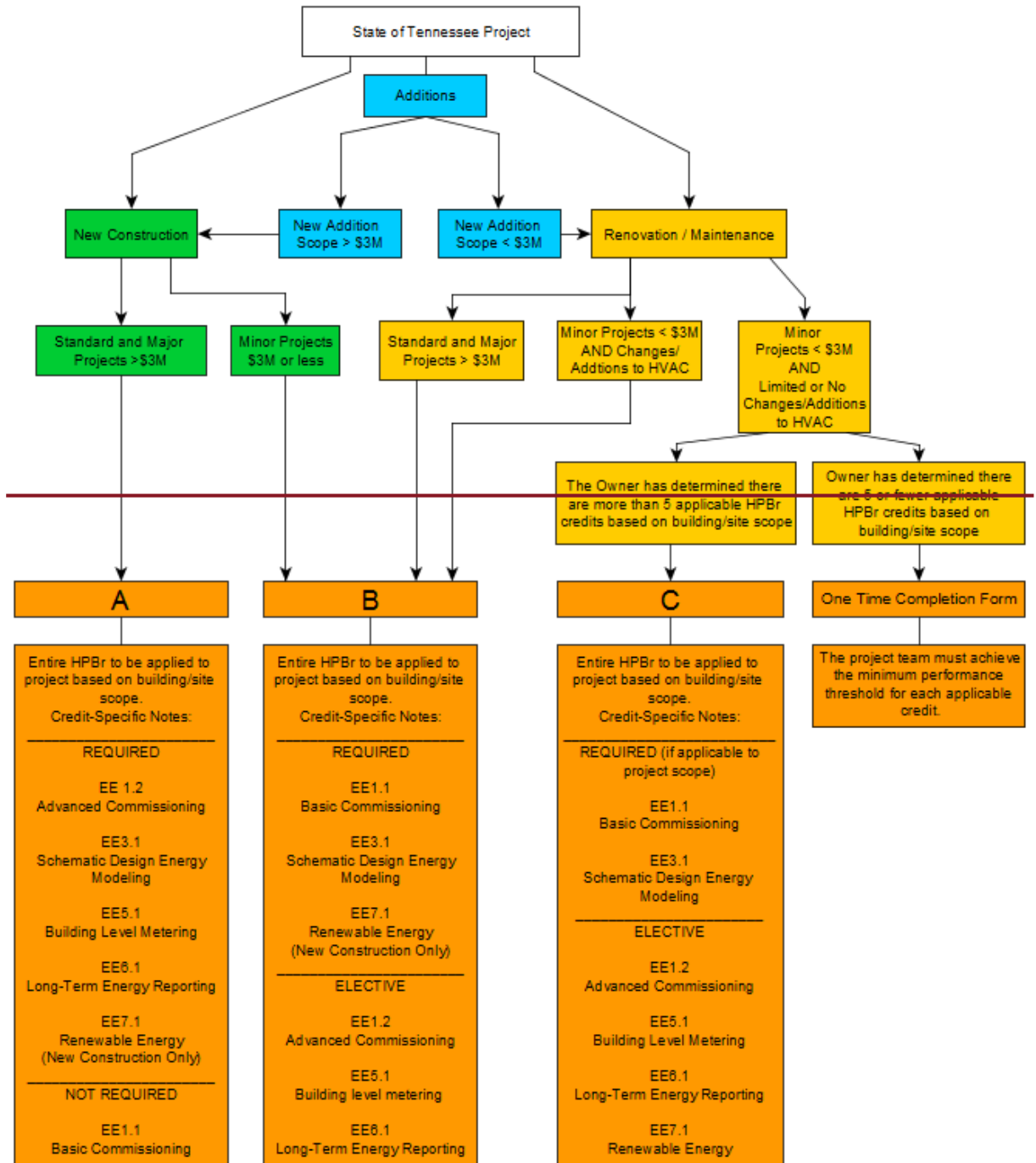
The OPR identifies the intended functional requirements and the expectations of the building's design and operation, including those systems which will be commissioned. The OPR is to be used in conjunction with the State of Tennessee High Performance Building Requirements (HPBr) Manual. The Manual provides detailed direction to the project team in terms of site, materials, energy efficiency, indoor environment, and other high performance design features. The OPR will provide early stage guidance to the project team, informing all parties on project-specific owner requirements. It will also serve as an overview of the commissionable systems which will be included in the Commissioning Plan.

The OPR also incorporates the HPBr Project Applicability Tree. ~~The Tree~~ which guides the Owner and Design Team through the process of determining whether particular energy efficiency credits ~~apply to~~ are required for a given project and what their minimum level of achievement must be. There are other credits as outlined in the High Performance Building Goals section that are always required when applicable to the project scope. They do not change to Elective based on the project category in the Applicability Tree.

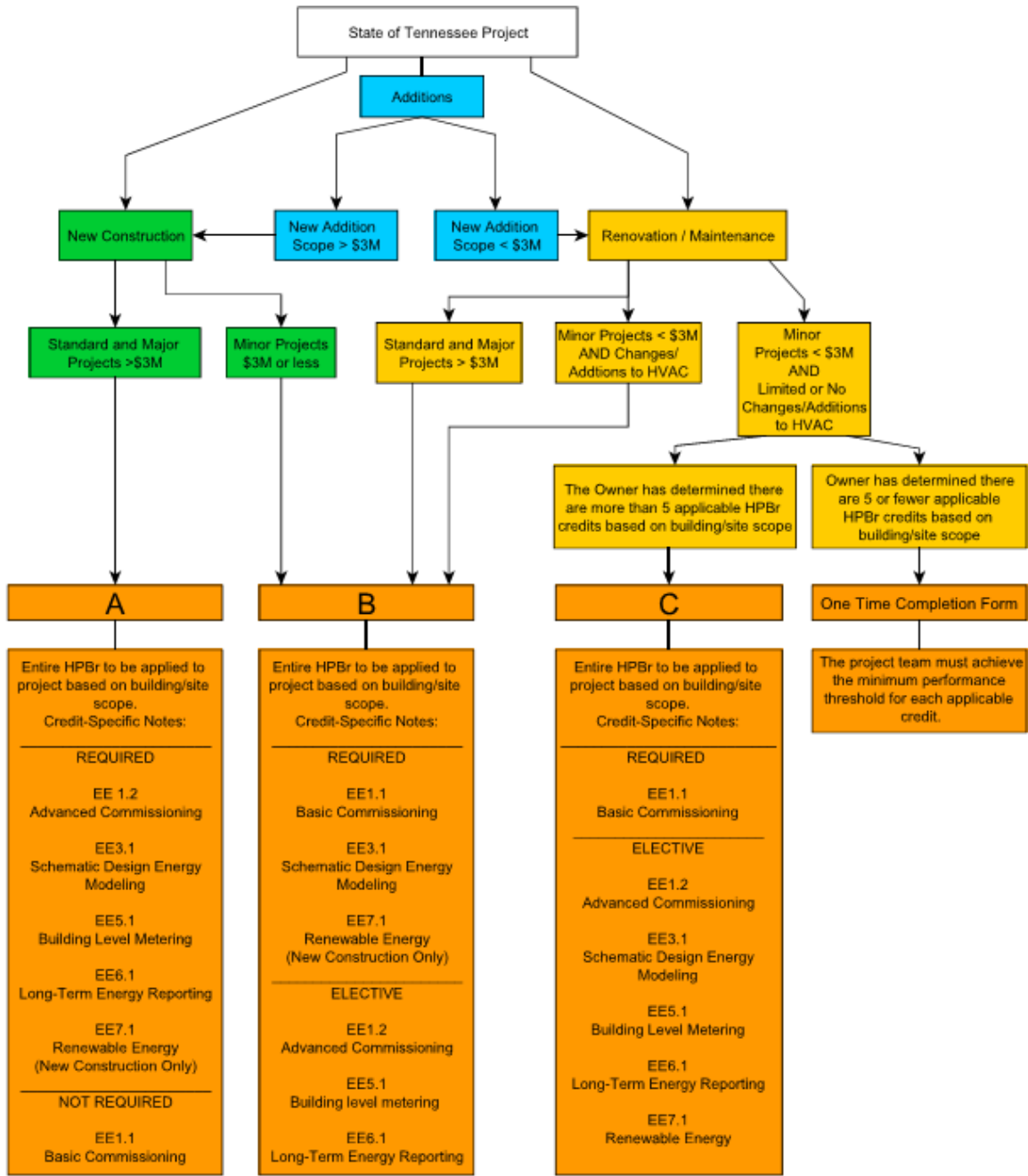
The more accurate and complete the OPR is, the more it can serve as the basis for evaluating project activities and decisions from design through operations. The Commissioning Agent will review the OPR for completeness and the project team is responsible for ensuring that the performance criteria contained in this document are incorporated into the design documents, and building construction.

2. Project Applicability Tree

State of Tennessee High Performance Building Requirements: Project Applicability Tree



State of Tennessee High Performance Building Requirements: Project Applicability Tree



NOTE 1: Project managers may determine which Required credits are applicable to their project based on building/site scope.
 NOTE 2: Additional credits are required when Applicable regardless of the project category, refer to High Performance Building Goals section for the full list.

3. Project Information Table

Project Classification					
Project Type		<input type="checkbox"/> New Construction <input type="checkbox"/> Addition <input type="checkbox"/> Renovation / Maintenance			
Project MACC Budget (Maximum Allowable Construction Cost)		<input type="checkbox"/> Standard and Major (Greater than \$3M) <input type="checkbox"/> Minor (\$3M or less)			
Replacement or Additions to Existing HVAC Systems		Enter Yes or No with short description			
Project Requirements on Applicability Tree (Refer to the figure above) The credits under the selected option shall be "Required" <u>Refer to High Performance Building Goals section for additional required credits</u>		<input type="checkbox"/> A EE1.2 EE3.1 EE5.1 EE6.1 EE7.1	<input type="checkbox"/> B EE1.1* EE3.1 EE7.1	<input type="checkbox"/> C EE1.1* EE3.4	<input type="checkbox"/> One-Time HPBr Completion Form
Choose Basic or Advanced Commissioning* (Owner to de-select systems not to be commissioned in "Commissioning" section below)		<input type="checkbox"/> EE1.1 Basic Commissioning <input type="checkbox"/> EE1.2 Advanced Commissioning <input type="checkbox"/> Not applicable based on building/site scope			

*When Basic Commissioning is required based on project application, Advanced Commissioning may still be chosen at the Owner's discretion.

General Operation Schedules	
Lighting	Weekday: Example: 7 AM to 9 PM Saturday: Example: 8 AM to 12 PM Sunday: Example: Off Holiday: Example: Off
HVAC	Weekday: Example: 7 AM to 9 PM Saturday: Example: 8 AM to 12 PM Sunday: Example: Off Holiday: Example: Off
After-hour overrides	Example: Allow a 2-hour occupant override of lighting on each floor

Project Overview and Special Requirements
<p>Project Description: (Include general description, leasable area, conditioned area, gross floor area, occupancy figures including type and number, as well as expected facility and program life spans)</p>
Enter Project Description
<p>Planned future program or building changes as well as any concurrent projects (Include location changes, space usage, related scopes, etc.)</p>
Enter future program or building changes as well as any concurrent projects.
<p>General Building Requirements (Include those related to energy, ventilation, occupancy, etc. where applicable to the entire building)</p>
Enter General Building Requirements
<p>Special Space Requirements (Include laboratory, server room, or other special area requirements as applicable)</p>
Enter Special Space Requirements
<p>Special HVAC System Requirements (Include required or desired characteristics such as type of system, humidity control, etc.)</p>
Enter Special HVAC System Requirements
<p>Special Lighting Requirements (Include required or desired characteristics such as illuminance levels, power density, fixture requirements, control interfaces, etc.)</p>
Enter Special Lighting Requirements
<p>Special Building Control Systems Requirements (Include required or desired integration or communication between control systems, including lighting, BAS, HVAC, Fire Suppression, etc)</p>
Enter Special Building Control System Requirements

4. High Performance Building Goals

- A. High performance building criteria will be implemented to improve the following, based on the building/site scope:
- a. Land Management
 - b. Water Efficiency
 - c. Energy Efficiency
 - d. Material and Resource Use
 - e. Indoor Environmental Quality
 - f. Innovation in Design and Construction
- B. The HPBr Checklist includes a summary of the Owner's high performance design requirements and has been attached to this document.
- a. In addition to the credits found in the Project Information Table, the following credits will be "Required" except where they do not apply to the building/site scope of the project:
 - LM 2.1 Site Disturbance – Erosion Control
 - LM 4.2 Landscape Design
 - LM 6.4 Stormwater Design
 - WE 1.1 Water Efficient Landscaping
 - WE 3.1 Water Use Reduction
 - EE 2.1 Energy Efficient Purchasing Policy
 - ~~EE 3.1~~ EE 3.3 Minimum Energy Performance
 - MR 1.1 Recycling Storage and Collection
 - MR 3.1 Sustainable Materials
 - EQ 1.1 Tobacco Smoke Control
 - EQ 2.1 Minimum Ventilation
 - EQ 6.1 through EQ 6.5 Material VOC Limits
 - EQ 7.2 Pollutant Control – Hazardous material storage
 - EQ 8.1 Thermal Comfort
 - b. Based on building/site scope, the project team will evaluate all applicable or relevant "Elective" credits to achieve all credits required by the Owner and as many as budgetary and other constraints allow. To comply with the HPBr, the project team will achieve 50% of the points applicable to the project. Determination for credit achievement will be made by the Owner.
 - c. While the HPBr Checklist provides a summary of the applicable requirements for each credit, more detailed instructions can be found in the HPBr Manual.
- C. Commissioning:
- a. The systems to be commissioned shall align with the contracted scope of commissioning work for the Basic and Advanced commissioning credits.

- b. The commissioning process should verify the installation, functional performance, and integration of the following building systems:
- Minimum required systems to commission
 - ☒ Heating, ventilating, air conditioning and refrigeration (HVAC&R) systems
 - ☒ HVAC controls including BAS graphic display points and data trending capability
 - ☒ Domestic Hot Water Systems
 - ☒ Distribution Panels
 - ☒ Branch Circuit Panel boards
 - ☒ Emergency Power Equipment, including generator and switchgear
 - ☒ UPS System
 - ☒ Lighting Control System
 - ☒ Renewable Energy Systems
 - Optional systems to commission based on Owner or Owner agent determination.
 - ☐ Domestic Booster Pumps
 - ☐ Lighting Level Measurements
 - ☐ Excessive Voltage Drop, Power Circuit
 - ☐ Grounding of Panels
 - ☐ Smoke Evacuation Systems
 - ☐ Building Envelope/Enclosure
 - ☐ Other Systems: Enter other systems to be commissioned