

Commercial Energy Compliance Plan Review Submittal Worksheet

Applies to new construction, additions, alterations, renovations, repairs and changes of use for commercial buildings, systems and equipment. Commercial buildings are all buildings except detached one- and two- family dwellings, multiple single-family dwellings (townhouses) as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane. Information on construction documents shall comply with MN Rules 1323.0100 Subp. 10. When commissioning is required, it shall be specified in construction documents prior to permit approval.

- STEP 1** Select compliance method using this form
STEP 2 Prepare forms, reports or other documentation as indicated for the method and path chosen for evaluation of compliance
STEP 3 Prepare ENERGY CODE COMPLIANCE DRAWING SHEET(S)
STEP 4 Submit items from Steps 1-3 and other construction documents with permit application package

1a. ASHRAE Standard Compliance for NEW BUILDINGS, ADDITIONS, ALTERATIONS & REPAIRS

Comply with the provisions of the following ASHRAE 90.1-2010 sections:

Section 5 Building Envelope

- ENVELOPE PRESCRIPTIVE PATH
Submit **Standard 90.1-2010: Building Envelope Compliance Forms - Part 1 and Part 2**
- ENVELOPE TRADE-OFF OPTION
Submit **COMcheck** report for ASHRAE building envelope trade-off option

Section 6 Heating, Ventilation and Air Conditioning

- HVAC SIMPLIFIED APPROACH
Submit **Standard 90.1-2010: HVAC Simplified Approach Compliance Forms Part 1**
- HVAC PRESCRIPTIVE PATH
Submit **Standard 90.1-2010: HVAC Mandatory Provisions Compliance Forms - Part 2 and Part 3**

Section 7 Service Water Heating

- PRESCRIPTIVE PATH
Submit **Standard 90.1-2010: Service Water Heaters Compliance Forms**

Section 8 Power

Only one compliance path is available for power distribution systems

Section 9 Lighting

- BUILDING AREA METHOD
Submit **Standard 90.1-2010: Lighting Compliance Forms**
- SPACE-BY-SPACE METHOD
Submit **Standard 90.1-2010: Lighting Compliance Forms**

Section 10 Other Equipment

Comply with provisions of Section 10.

1b. ASHRAE Energy Cost Budget Compliance for NEW BUILDINGS and ADDITIONS

Comply with the provisions of ASHRAE 90.1 2010 Section 11 Energy Cost Budget. Software used for ECB must be approved by the building official prior to submittal.

Submit **Standard 90.1-2010: Energy Cost Budget (ECB) Compliance Forms**. Additionally, submit:

- A narrative summary of the project discussing the energy designer professional's experience with similar projects, the simulation software, the basis for the budget building and the design building and its uses.
- The energy cost budget for the budget building and the design building
- A list of energy-related features on which compliance with ECB is based. This will include descriptions of building envelope assemblies and building systems and equipment
- Indication of which energy-related features in the design building differ from the budget building
- The source of purchased energy rates used in the design and budget buildings
- Specific references to the construction documents comprising the design building, with project name, address, drawing and specification dates, and certifying design professional contact information for each discipline
- Proposed method for addressing revisions to design building during the construction project
- Proposal for certification that the building complies with the design building upon completion of construction.

2. IECC Prescriptive for NEW BUILDINGS, ADDITIONS, ALTERATIONS & REPAIRS

Comply with the provisions of the following INTERNATIONAL ENERGY CONSERVATION CODE (IECC), MN RULES CHAPTER 1323 sections:

Section C402	Building Envelope Requirements	Section C404	Service Water Heating
Section C403	Building Mechanical Systems	Section C405	Electrical Power and Lighting Systems

Additionally, new buildings must also comply with either Section C406.2 Efficient HVAC Performance, or 406.3 Efficient Lighting Systems or 406.4 On-site Renewable Energy

3. Total Performance for NEW BUILDINGS

Comply with the following IECC MN RULES CHAPTER 1323 sections:

Section C407	Section C405.3
Section C402.4	Section C405.4
Section C403.2	Section C405.6
Section C404	Section C405.7
Section C405.2	

And building energy cost shall be equal to or less than 85 percent of the standard reference design building.

Software used for IECC Total Performance must be approved by the building official prior to submittal.

Additionally, submit:

- A narrative summary of the project discussing the energy designer professional's experience with similar projects, the simulation software, the basis for the standard reference building and the design building and its uses.
- The compliance report documenting that the proposed design has annual energy costs not more than 85 percent of the standard reference design.
- The inspection checklist and all other documentation and information as indicated in IECC Section C407.4.
- The source of purchased energy rates used in the proposed and standard reference design buildings
- Specific references to the construction documents comprising the standard reference design building, with project name, address, drawing and specification dates, and certifying design professional contact information for each discipline
- Proposed method for addressing revisions to proposed building during the construction project
- Proposal for certification that the building complies with the proposed building upon completion of construction.

ENERGY CODE COMPLIANCE DRAWING SHEET(S) For all compliance methods

Submit separate energy code compliance drawing sheet(s) with the following components:

- Narrative explanation of energy code compliance approach
- Drawings depicting the thermal envelope and continuous air barrier
- Schedule of energy-related features, including building construction components, building services and equipment, prescribed or used in the compliance calculations and analysis. For each item, list:
 - The U-value, R-value, or other relevant energy metric associated with the item
 - The plan sheet or specification section where the item is located in the construction documents.
- Indication whether System Commissioning is required for the project. Prior to issuance of building permit, the name of the individual or company that will provide the system commissioning must be provided and acknowledged by the project owner.