

Compliance Strategy Options.

"There are two basic steps to comply with the Energy Code.

1. Meet all **Mandatory requirements** by installing required systems, equipment & devices and ensuring that they perform all functions required by the Energy Code.
2. Select your method of compliance by choosing either the **Performance Approach** or the **Prescriptive Approach.**"



"Mandatory Requirements"

All conditioned nonresidential buildings must meet a set of Mandatory requirements for minimum envelope efficiencies and construction of assemblies. Examples of building envelope components addressed by Mandatory Measures include minimum insulation levels, infiltration controls and maximum fenestration U-factor."



"Prescriptive Approach"

The Prescriptive Approach is considered the most direct path to compliance. It is a set of prescribed performance levels for various building components, where each component must meet the required minimum efficiency. There are different Prescriptive requirements for newly constructed buildings, Additions and Alterations."



"Performance Approach"

The Performance Approach is considered the most flexible compliance method, and it can be used to analyze and demonstrate compliance for buildings that do not comply easily with the Prescriptive Method. In the Performance Approach, the proposed building is analyzed using Energy Commission-approved compliance software, and its estimated annual energy use is compared to a "Standard Design" baseline energy use. Energy used for space heating, space cooling, indoor fans, pumps, water heating and indoor lighting are added together and become the "Compliance Energy Total" documented on the NRCC-PRF-01-E.



The “**Standard Design**” is a baseline analysis of the proposed building, used to set the energy budget in the Performance Method. For envelope measures the “Standard Design” assumes all envelope components meet the Prescriptive requirements in §140.3 and TABLE 140.3-B, C or D. The proposed design is the building being analyzed for compliance with proposed building energy features. A building complies when the calculated compliance energy total for the proposed design is less than that for the Standard Design.



“**Performance Method**” energy use is measured in kTDV/ft²-yr. Per §100.2, TDV (time dependent valuation) energy is calculated by multiplying the site energy use (Electricity KWh, Natural Gas Therms, or Fuel Oil or LPG gallons) for each energy type by the applicable TDV multiplier summarized in Reference Joint Appendix JA3. The Performance Approach allows trade-offs between different envelope components. If envelope is combined with other parts of the building for energy compliance, then more trade-offs can be made. For example, increasing indoor lighting and/or mechanical equipment efficiency in order to allow for lower envelope efficiency. Often the Performance Approach is used for new construction projects, analyzing the building as a whole (envelope, mechanical and indoor lighting). The Performance Approach also may be used to analyze and document compliance for Additions and Alterations.

The Performance Approach may be used to perform compliance analysis for the following scenarios:

- Whole building (envelope, mechanical and indoor lighting)
- Envelope only or mechanical only
- Envelope + lighting, envelope + mechanical or mechanical + lighting

Note: The Performance Approach is not allowed for lighting only analysis. This must be done using the Prescriptive Approach.

It is my hope that the above high-level description of the compliance methods provides a clear understanding and some guidance in selecting the most appropriate path for your project.

Sincerely,
Mechanical + Energy
Commercial Code Compliance

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