

CALIFORNIA ENERGY COMMISSION

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**2013 Building Energy Efficiency Standards,
California Code of Regulations, Title 24,
Parts 1 and 6****Docket No. 12-BSTD-01
Building Energy Efficiency Program
Resolution No. 15-219****APPROVAL BY THE EXECUTIVE DIRECTOR OF THE PUBLIC DOMAIN
CALIFORNIA BUILDING ENERGY CODE COMPLIANCE (CBECC-COM) VERSION 3B**

The Executive Director hereby approves the California Building Energy Code Compliance Software (CBECC-Com Version 3b) as the public domain alternative calculation method for demonstrating performance compliance with the nonresidential provisions of the 2013 Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6, and associated administrative regulations in Part 1, Chapter 10 (Standards).

The Warren-Alquist State Energy Resources Conservation and Development Act, Public Resources Code sections 25000 et seq., 25402.1, subd. (b), requires the Energy Commission to, among other things, establish a process for certifying calculation methods for demonstrating compliance with its building energy efficiency standards.

CBECC-Com Version 3b incorporates additional functionality and corrections to the compliance manager and Application Programming Interface (API).

The update includes the following functional changes:

- Revised fan-power part-load performance curve for multi-zone VAV systems
- Reduced the size of the AnalysisResults.XML file and fixed results retrieval errors
- Updated the ruleset to modify how the software processes zones with unmet load hours
- Added additional window and skylight definitions to the standard design library
- Updated the User Interface (UI) to support features of the new performance compliance report (NRCC-PRF-01-E) as follows:
 - Two-dimensional (simplified geometry) shading options
 - User defined shading options within detailed geometry
 - Capability to import data after Exceptional Design Calculation Methodology simulations directly within EnergyPlus engine
 - New user inputs and Standards Data Dictionary (SDD) items to incorporate the expanded performance compliance report

The following corrections were made to Version 3b:

- Ventilation rule implementation error for some occupancies
- Water heating sizing calculations

- Night Cycling algorithm to allow the intended operation of night cycling
- Internal default supply air temperature settings from 60 to 55 degrees F for specific applications
- Miscellaneous reported issues

In approving CBECC-Com Version 3 on August 27, 2014, the Energy Commission directed the Executive Director to take all actions reasonably necessary to ensure that CBECC-Com is maintained and revised to accurately estimate the energy use of nonresidential buildings and demonstrate compliance with the 2013 Building Energy Efficiency Standards for buildings, including correcting functional errors.

In addition to increasing functionality and resolving concerns from the building industry, addressing these issues does not significantly affect compliance with the 2013 Building Energy Efficiency Standards.¹ Thus, this update does not require approval by the Energy Commission.²

By approving CBECC-Com version 3b, approval of previous versions (version 3 and version 3a) of CBECC-Com will expire for new permit applications made on or after August 17, 2015, leaving CBECC-Com V3b as the approved version.

Vendors of the Alternative Calculation Method, namely IES Virtual Environment 2014 Title-24 Feature Pack 1 and Virtual Environment Feature Pack 2, must integrate the CBECC-Com version 3b Compliance Manager into their software, and provide the Energy Commission with an updated copy of the software and user manual by July 3, 2015, in order to continue as an approved version of software.

The Executive Director rescinds approval of the Alternative Calculation Method based on the previous CBECC-Com Compliance Manager versions (IESs' Virtual Environment 2014 Title-24 Feature Pack 1 and Virtual Environment 2014 Feature Pack 2) for permit applications made on or after August 17, 2015.

Information for obtaining CBECC-Com Version 3b will be posted on the Energy Commission's 2013 Standards website for approved computer compliance programs:
www.energy.ca.gov/title24/2013standards/2013_computer_prog_list.html.



ROBERT P. OGLESBY
Executive Director

¹ Cal. Code Regs., Title 24, Part 1, Ch. 10, and Part 6 (also known as the California Energy Code).

² See Nonresidential Alternative Calculation Method Approval Manual, May 2012, Pub. No. CEC-400-2012-006-CMF-REV, § 1.2.2, p. 1-3, available at: <http://www.energy.ca.gov/2012publications/CEC-400-2012-006/CEC-400-2012-006-CMF-REV.pdf>.