CBECC 2025 Quick Start Guide | Release Notes

Version CBECC 2025.2.0 November 2025

Overview

CBECC is an open-source software program developed by the California Energy Commission for use in showing compliance with the *2025 Building Energy Efficiency Standards* for nonresidential, multifamily and single family residential buildings.

This version (CBECC 2025.2.0) has been approved by the California Energy Commission and can be used to show compliance with the Title-24 2025 Standards.

This guide provides brief descriptions of the software program's major features and enhancements. It is a good idea to review this document before using the program for the first time or if you have questions while using the program.

Capabilities/Enhancements included in CBECC 2025.2.0

- General
    - Improvements to CBECC Start-Up dialog for clarity in choosing how to initialize the program (new/existing/alternative project for nonres/multifamily vs. single family)

Nonresidential / Multifamily

- HVAC & Ventilation
    - Enhanced Capacity Control for Four Pipe Fan Coil (FPFC) Systems. This enhancement ensures that the system's simulated behavior more accurately reflects expected real-world performance, resulting in more reliable and realistic energy modeling outcomes.
    - The simulation method for primary/secondary loop systems has been revised to align with the approach recommended by the EnergyPlus development team. This update enhances the predictability and reliability of simulation results, providing more consistent and trustworthy results.
    - The calculation method for exhaust fan power ratio in the Standard Design has been revised to align with the ACM (Alternative Calculation Method) specification. This update applies specifically to cases where Mechanical compliance is not included, or PartialMechanical is used and a zone is marked as "HVAC Is Unknown."
- Water heating
    - Remove 'UEF Rated' HPWH category option and add ability to specify these equipment via tier & tank size selections where equipment UEF can be entered

- Envelope
    - Mandatory fenestration requirements for addition/alteration projects added per Title 24 Pt. 6 Section 141.0(b)E
- PV & Battery
    - Removed the ability to simulate community solar since the SMUD community solar no longer accepts new applications.
    - Ability to specify that multifamily project is subject to Executive Order N-29-25 (repair/replace following 2025 LA fires) which bypasses PV & battery requirements
- Reporting
    - Updates to NRCC to report the ECC Feature summary table
    - Updates to LMCC PRF compliance report to add reporting of LMCI/NRCA
    - Updates to add additional information to Nonresidential Fan Summary Table
    - Added exceptional condition for school projects to check if they follow the Division of State Architect or California State University procedures for school campus PV systems to comply
    - NRCC/LMCC added an additional water heating table to report NEAA Tier HPWH when multifamily is modeled.
    - Updates to residential HVAC-Heat Pump table to report cooling capacity, backup and speed for heat-pump systems

Single Family

- Addition of new sample project files: 1storyExampleDualFuelHeatPump, 1storyExampleDuctlessPkgHP, and 1storyExampleVariableSpeedSplitHP
- Substantial restructuring of summary (& batch) results CSV export, moving primary compliance metrics up front (to left) and removing dozens of columns no longer used in compliance
- Improvements for clarity in specification of exterior wall orientation (azimuth)
- HVAC & Ventilation
    - Added mandatory minimums for duct insulations, duct leakage, supply central system airflow rates and fan efficacies.
- Water heating
    - Remove ‘UEF Rated’ HPWH category option and add ability to specify these equipment via tier & tank size selections where equipment UEF can be entered
- Envelope
    - Added mandatory minimums for roof & wall insulations, raised floor insulation, and fenestration.
- PV & Battery
    - Ability to specify that project is subject to Executive Order N-29-25 (repair/replace following 2025 LA fires) which bypasses PV requirements
    - PV input dialog revisions for clarity
    - Removed the ability to simulate community solar since the SMUD community solar no longer accepts new applications.

- Reporting
    - Updates to CF-1R to report multiple orientation runs
    - Updated Special Feature and ECC summary tables to display after the Compliance Results table
    - Updates to Opaque Construction Surface table to add column displaying Non-Standard Spray Foam
    - Updates to water heating table to correctly report NEAA Tier 3 and 4 water heaters
    - Updates to HVAC-Heat Pump table to report cooling capacity, backup and speed for heat-pump systems
    - Other minor updates as identified in user issues

California Utilities Allowance Calculator (CUAC)

- Integration of new tariff updates (dated 9/29/25)
- Ability to toggle off inclusion of space heating, cooling and/or indoor air quality energy use in utility bill calculations by dwelling unit type
- Ability to specify tenant not responsible for gas bills
    - Gas central systems serving the entire building will not impact on the individual tenant spaces.

Bugs Fixed in CBECC 2025.2.0

Nonresidential / Multifamily

- Expanded size of BEMBase database class listing to accommodate growing number of LMCC/NRCC compliance reporting classes
- Corrections to multifamily DHW analysis:
    - Ensure HPWH standard design with compact distribution and drain water heat recovery in those climate zones spelled out in code and ACM for lowrise multifamily projects
    - Ensure that standard design source energy metric is simulated as gas instantaneous systems in place of individual HPWHs

Single Family

- Fixed analysis error in standard model setup when proposed model included ductless HVAC equipment with a distribution assignment of type “Distribution systems without ducts”
- Fixes to CSE (residential) simulation engine - Performance map based RSYS multizone bug fix and accumulator calculation order improvements (included in 0.927.0-rc2)
- Ensure simulation of gas instantaneous water heater to calculate standard design source energy metric for dwellings specifying the small home electric water heating exception
- Fix to setup of standard design model when proposed design includes existing ducted multisplit or ducted minisplit HVAC equipment
- Remove standard design PV simulation when performing existing/addition/alteration analysis

Bugs Fixed in previous version CBECC 2025.2.0 RC

Nonresidential / Multifamily

- Resolved a simulation error in the computer room system caused by inconsistent supply air temperature settings.
- Revised several space function names and additional lighting power allowance option names to align with the Standard.
- The HRV system in the baseline multifamily dwelling unit has been revised to reflect updates in the applicable standard.
- Fixed an issue where, in certain situations, a zone system would run continuously (24/7) when it was not intended to.
- Fixed an EnergyPlus bug that disabled heat recovery in VRF systems. This issue was resolved as part of the simulation engine upgrade.
- Resolved an issue where WSHP systems were incompatible with the previous version of EnergyPlus. This was addressed through the simulation engine upgrade.
- Changes to prevent analysis of multifamily models that specify an interior surface modeling option intended to simplify user inputs but not yet approved for compliance analysis.

- Fix multifamily project property resets related to toggling individual fuel (electric, gas other) CSE meter output vs. 'All' option.
- For nonresidential alteration projects, fix rules to not report exceptional condition in PRF for CRRC verification if the roof is existing and CRRC certified.
- Update the upper limit UEF to 5.0 for the consumer rated heat-pump water heaters
- Update rules to fix duplicate reporting of DDC controls in the HVAC System Special Features table in the PRF report.

Single Family

- Fixed issues with exterior door performance in EAA (Existing/Addition/Alteration) analysis
- Fixed performance settings of Altered ceiling-below-attic surfaces that in some cases were being modeled as New
- Removed the requirement (in software) to include R-5 8-inch slab edge insulation for existing heated slab floors
- Revise pre-cooling temperature setpoints to be consistent with ACM
- Added model check and error message when separate attics w/ inconsistent standard design roof cavity R-value requirements reference the same roof construction
- Re-enable EER/EER2 user input for heat pumps
- Fixed problem where drain water heat recovery was included in standard design point-of-use electric systems when small home electric exception is specified
- Fixed error in calculation of compliance summary Proposed Efficiency TDV/LSC results displayed in UI for All Orientations models
- Fix rules to ensure compliance result properly calculated and setup regardless of whether battery, self-utilization or flexibility is included in analysis

Known Issues:

- General Issues
    - No resizing of standard design systems if unmet load hour (UMLH) requirement is not met.
- Spaces
    - Increasing the number of occupants in the space only currently impacts the ventilation calculation when using DCV. It does not increase the prescribed occupant density assumed in the compliance simulation.
    - Space without a ceiling can cause unexpected heating/cooling load.
- HVAC Secondary Systems
    - Simulation of supply air temperature and flow controls may not match ACM requirements
    - Specifying DCV for all zones of a multi-zone system results in unexpectedly high energy use.
    - The simulated supply air temperature for FPFC systems may be less than expected; which can result in more hours of fan operation and therefore high fan energy use.
    - AirSystem SZVAV systems with economizers act as constant volume systems when the economizer is not active. A higher economizer control limit is recommended to alleviate this.
    - AirSystem SZVAV systems with water-source cooling coils have higher cooling loads and energy use than comparable air-source cooling coils.
    - In some cases with central IAQ systems in multifamily buildings the Standard Design rules are not applied properly and incorrect compliance results may be produced
    - Imbalanced air flow with insufficient zone connection of a residential zone can cause CSE air pressure out of range error that leads to simulation termination. But this error is not obvious to users.
    - Due to limitations imposed by EnergyPlus, the maximum number of zone exhausts that can be connected to a heat recovery system is capped at eight.
    - In a project file with multiple VRF systems, if any VRF system is connected to only one zone system, and heat recovery is specified for one or more VRF systems, heat recovery for one of the units will be disabled causing UMLHs. The current workaround is to avoid having a VRF system connected to only one zone system. If the zone system represents multiple indoor units, divide the thermal zone into smaller zones, and create a zone system for each zone. Otherwise, use mini-split heat pumps to model the single zone VRF systems.
    - WSHP stopped providing any heating/cooling after the EnergyPlus upgrade. This will be fixed in the next EnergyPlus upgrade.
    - The simulated outdoor air in kitchens is not realistic and causes overestimating heating load and sometimes large numbers of UMLHs.

- HVAC Primary Systems

- When a user model includes a condenser water loop for a Water Source Heat Pump (WSHP) system and uses individual variable speed pumps for the boiler and cooling tower, selecting the “Add cooling system to meet load” option (which triggers a sizing run for the proposed design) will cause EnergyPlus to terminate with an error. This issue stems from an EnergyPlus bug that prevents sizing runs from completing successfully with this specific configuration. Potential workarounds for this issue includes:
  - Disable the sizing run for the proposed design by unselecting the add cooling system option, or
  - Use a single variable speed pump placed in the return segment to represent multiple pumps in the design.
- Simulation failures have been observed for WSHP models, where the condenser water loop temperature runs (high) out of the accepted E+ temperature range. Potential workarounds for this issue include:
  - Modeling the WSHP system as an AirSystem (Type = ‘SZHP’ or ‘SZVAVHP’ with ‘WaterSource’ as the condenser type).
  - Modeling CW system with a single variable-speed pump on the return FluidSegment.
  - Modeling CW loop pump in ‘StandBy’ mode.
- VRF and WSHP systems, when modeled for multifamily dwelling units, can yield unreasonable results which could result in incorrect compliance results.
- The capacities of the auto-sized condensing water loop equipment which serve WSHP in multifamily dwelling units are doubled in simulation.
- Some models with constant speed pumps on hot water loops may see errors where the water temperature exceeds upper limits due to an EnergyPlus issue where pumps run and add heat to the loop during periods when there is no heating demand.
- All pumps on primary loop of primary/secondary pumping systems will run if there is any demand on the secondary loop
- Evaporative-only cooling systems that cycle to meet cooling loads are not simulated correctly.
- Multifamily WSHP loop cooling tower pump turns on when boiler pump is on. This happens to the systems with separate ‘constant speed’ pumps serving the cooling tower and the boiler respectively.
- WSHP loop temperature is not properly controlled if the heat rejection device is “ClosedTowerEvaporative” and the pump(s) is variable speed.
- Cooling tower total fan horsepower has not been updated per the 2025 ACM
- Fluid system wet up with primary/secondary pumping control with multiple chiller/boiler pumps is not supported.
- Variable speed fan is not supported for FPFC systems.

- Material Data
  - The values in Table 4.3.8 of JA4 are being reviewed for potential revision. Spandrel panel and curtain wall material data are based on the current values in the table.

Example Input Files: A series of example models are installed along with CBECC in the Projects directory. These models are of various building types and HVAC systems.

StandardModelTests*

1. 010012-SchSml-CECStd
2. 020012-OffSml-CECStd
3. 020012S-OffSml-CECStd
4. 030012-OffMed-CECStd
5. 030012S-OffMed-CECStd
6. 040012-OffLrg-CECStd
7. 050012-RetlMed-CECStd
8. 060012-RstntSml-CECStd
9. 070012-HotSml-CECStd
10. 080012-Whse-CECStd
11. 090012-RetlLrg-CECStd

* Standard Test models may not exhibit a zero compliance margin.

VRFTests

1. 021013-OffSml-VRFSys
2. 021015-OffSml-VRFSys
3. 021016-OffSml-VRFSys
4. 021113-OffSml-VRFSysHR
5. 021115-OffSml-VRFSysHR
6. 021116-OffSml-VRFSysHR

OtherTests

1. 010112-SchSml-PSZ
2. 010212-SchSml-PVAVAirZnSys
3. 010312-SchSml-VAVFluidZnSys
4. 040112-OffLrg-AbsorptionChiller
5. 040112-OffLrg-VAVPriSec
6. 040112-OffLrg-Waterside Economizer
7. 050112-RetlMed-SZVAV
8. 050312-RetlMed-Alterations
9. OffLrg-PlenumsFPBsData
10. OffLrg-PrkgExhaust
11. OffLrg-PrkgLab
12. OffLrg-PrkgLabKitchen
13. OffLrg-RetailHlthcare
14. OffLrg-RetailHlthcarewithPlant
15. OffLrg-ThermalEnergyStorage_ChillerPriority
16. OffLrg-ThermalEnergyStorage_StoragePriority
17. OffMed-AWHP
18. OffMed-CoreAndShell
19. OffMed-CoreAndShellwithPlant
20. OffMed-FanPowerAdj
21. OffSml-ActiveBeams
22. OffSml-CommKit_SZVAV
23. OffSml-Data-Economizer
24. OffSml-Data_SZVAV
25. OffSml-DOASCV+RadiantCeiling
26. OffSml-DOASCV+RadiantFloor
27. OffSml-DOASCV+RadiantFloorSimplified
28. OffSml-HtRcvry
29. OffSml-HtRcvryFromExh_AllZn
30. OffSml-HtRcvryFromExh_OneZn
31. OffSml-HybridClg
32. OffSml-Lab_SZVAV
33. OffSml-MiniSplit
34. OffSml-MultiHVACSys+DOAS
35. OffSml-MultiHVACSys
36. OffSml-Office_SZVAV
37. OffSml-PassiveBeams-DOASCV+HtRcvry
38. OffSml-PassiveBeams-DOASVAV
39. OffSml-PassiveBeams
40. OffSml-PSZ-Evap
41. OffSml-WSHP
42. RetlMed-PVAV-IndirDirEvap
43. RetlSml-DOAS+FPFC
44. RetlSml-DOAS+GravityFurnace

MultiFamilyStandardModelTests

1. MF36Unit_3Story_ELEC-CZ01
2. MF36Unit_3Story_ELEC-CZ02
3. MF36Unit_3Story_ELEC-CZ03
4. MF36Unit_3Story_ELEC-CZ04
5. MF36Unit_3Story_ELEC-CZ05
6. MF36Unit_3Story_ELEC-CZ06
7. MF36Unit_3Story_ELEC-CZ07
8. MF36Unit_3Story_ELEC-CZ08
9. MF36Unit_3Story_ELEC-CZ09
10. MF36Unit_3Story_ELEC-CZ10
11. MF36Unit_3Story_ELEC-CZ11
12. MF36Unit_3Story_ELEC-CZ12
13. MF36Unit_3Story_ELEC-CZ13
14. MF36Unit_3Story_ELEC-CZ14
15. MF36Unit_3Story_ELEC-CZ15
16. MF36Unit_3Story_ELEC-CZ16
17. MF36Unit_3Story_NGAS-CZ01
18. MF36Unit_3Story_NGAS-CZ02
19. MF36Unit_3Story_NGAS-CZ03
20. MF36Unit_3Story_NGAS-CZ04
21. MF36Unit_3Story_NGAS-CZ05
22. MF36Unit_3Story_NGAS-CZ06
23. MF36Unit_3Story_NGAS-CZ07
24. MF36Unit_3Story_NGAS-CZ08
25. MF36Unit_3Story_NGAS-CZ09
26. MF36Unit_3Story_NGAS-CZ10
27. MF36Unit_3Story_NGAS-CZ11
28. MF36Unit_3Story_NGAS-CZ12
29. MF36Unit_3Story_NGAS-CZ13
30. MF36Unit_3Story_NGAS-CZ14
31. MF36Unit_3Story_NGAS-CZ15
32. MF36Unit_3Story_NGAS-CZ16
33. MF88Unit_5Story_ELEC-CZ12
34. MF117Unit_10Story_Elec-CZ12
35. MF8Unit_2Story_ELEC-CZ12
36. MF8Unit_2Story_NGAS-CZ12

CUACSamples

1. CUAC-MF8Unit_2Story_ELEC-CZ12
2. CUAC-MF33Unit_5Story_ELEC-CZ03-PVBatt
3. CUAC-MF36Unit_3Story_NGAS-CZ09
4. CUAC-MF88Unit_5Story_ELEC-CZ12

MultiFamilyOtherTests

1. MF88Unit_Central Exhaust and Supply Heat Recovery
2. MF88Unit_Central Exhaust Individual Supply
3. MF88Unit_Individual Exhaust Central Supply
4. MF8Unit_2Story_ELEC-CZ12-VRF
5. MF8Unit_2Story_ELEC-CZ12-WSHP
6. MF36Unit_3Story_NGAS-CZ12-VRF
7. MF36Unit_3Story_NGAS-CZ12-WSHP
8. MF88Unit_5Story_ELEC-CZ12-FPFC
9. MF88Unit_5Story_ELEC-CZ12-VRF
10. MF88Unit_5Story_ELEC-CZ12-FlrMult
11. MF117Unit_10Story_ELEC-CZ12-FlrMult

SingleFamilySamples

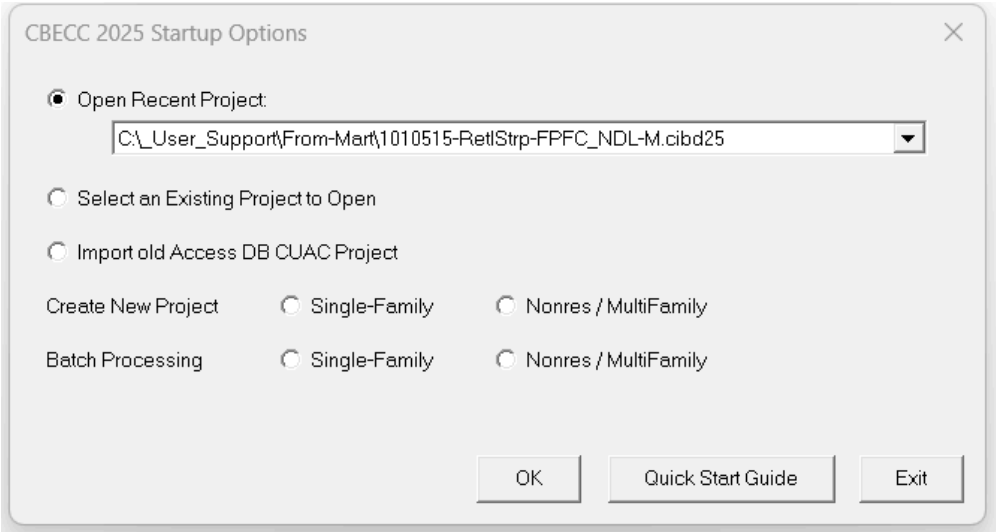
1. 1storyExample
2. 1storyExampleBelowGrade
3. 1storyExampleBuriedDuct
4. 1storyExampleCathedral
5. 1storyExampleCathedralWHF
6. 1storyExampleCompactDist
7. 1StoryExampleCrawl
8. 1storyExampleDrainWtrRecov
9. 1storyExampleDualFuelHeatPump
10. 1storyExampleDuctlessPkgHP
11. 1storyExampleDuplex
12. 1storyExampleGasDHW
13. 1storyExampleGasFurnace
14. 1storyExampleHVAC
15. 1storyExampleIAQ
16. 1storyExampleMild
17. 1storyExampleMulti
18. 1storyExampleNEEAHPWH
19. 1storyExampleUnvented
20. 1storyExampleVariableSpeedSplitHP
21. 2story2zoneExample
22. 2StoryExample
23. 2StoryExampleCombHydNoCool
24. 2storyZonalExample
25. AAExample
26. ADUExampleAdditionAlone
27. CUACExample
28. EAAExample
29. EAAExampleADU
30. EAAExampleGarage
31. EAAExampleLrgAddADU

SingleFamilyPrototypes

1. 2025_CZ01_2100ft2_Prop
2. 2025_CZ01_2100ft2_Std
3. 2025_CZ01_2700ft2_Prop
4. 2025_CZ01_2700ft2_Std
5. 2025_CZ02_2100ft2_Prop
6. 2025_CZ02_2100ft2_Std
7. 2025_CZ02_2700ft2_Prop
8. 2025_CZ02_2700ft2_Std
9. 2025_CZ03_2100ft2_Prop
10. 2025_CZ03_2100ft2_Std
11. 2025_CZ03_2700ft2_Prop
12. 2025_CZ03_2700ft2_Std
13. 2025_CZ04_2100ft2_Prop
14. 2025_CZ04_2100ft2_Std
15. 2025_CZ04_2700ft2_Prop
16. 2025_CZ04_2700ft2_Std
17. 2025_CZ05_2100ft2_Prop
18. 2025_CZ05_2100ft2_Std
19. 2025_CZ05_2700ft2_Prop
20. 2025_CZ05_2700ft2_Std
21. 2025_CZ06_2100ft2_Prop
22. 2025_CZ06_2100ft2_Std
23. 2025_CZ06_2700ft2_Prop
24. 2025_CZ06_2700ft2_Std
25. 2025_CZ07_2100ft2_Prop
26. 2025_CZ07_2100ft2_Std
27. 2025_CZ07_2700ft2_Prop
28. 2025_CZ07_2700ft2_Std
29. 2025_CZ08_2100ft2_Prop
30. 2025_CZ08_2100ft2_Std
31. 2025_CZ08_2700ft2_Prop
32. 2025_CZ08_2700ft2_Std
33. 2025_CZ09_2100ft2_Prop
34. 2025_CZ09_2100ft2_Std
35. 2025_CZ09_2700ft2_Prop
36. 2025_CZ09_2700ft2_Std
37. 2025_CZ10_2100ft2_Prop
38. 2025_CZ10_2100ft2_Std
39. 2025_CZ10_2700ft2_Prop
40. 2025_CZ10_2700ft2_Std
41. 2025_CZ11_2100ft2_Prop
42. 2025_CZ11_2100ft2_Std
43. 2025_CZ11_2700ft2_Prop
44. 2025_CZ11_2700ft2_Std
45. 2025_CZ12_2100ft2_Prop
46. 2025_CZ12_2100ft2_Std
47. 2025_CZ12_2700ft2_Prop
48. 2025_CZ12_2700ft2_Std
49. 2025_CZ13_2100ft2_Prop
50. 2025_CZ13_2100ft2_Std
51. 2025_CZ13_2700ft2_Prop
52. 2025_CZ13_2700ft2_Std
53. 2025_CZ14_2100ft2_Prop
54. 2025_CZ14_2100ft2_Std
55. 2025_CZ14_2700ft2_Prop
56. 2025_CZ14_2700ft2_Std
57. 2025_CZ15_2100ft2_Prop
58. 2025_CZ15_2100ft2_Std
59. 2025_CZ15_2700ft2_Prop
60. 2025_CZ15_2700ft2_Std
61. 2025_CZ16_2100ft2_Prop
62. 2025_CZ16_2100ft2_Std
63. 2025_CZ16_2700ft2_Prop
64. 2025_CZ16_2700ft2_Std

Starting a New Project

When CBECC is first started, a dialog box will appear with the options below::



Option 1 and Option 2 are essentially the same, except that the “Open Recent Project” option automatically selects the project that was being worked on the last time CBECC was open. The “Select an Existing Project to Open” option simply requires browsing to the desired project.

If “Select an Existing Project to Open” is selected, the default file type in the browse window is either a .ribd25 or .cibd25 file. However, this can be changed to .ribd25x, .cibd25x or .xml, allowing you to open a SDD XML file. This option should be used when working on a Detailed Geometry project.

The Import old Access DB CUAC project option is for importing legacy Access DB CUAC project files.

The rest of the options, Create New Project and Batch Processing, allow you to select the project type - Single Family vs Nonresidential/Multifamily.

Return to Quick Start Main Menu

Tool Bar

This section explains the program features you access by selecting the icons on the toolbar at the top of the screen.

New File

 This button closes the current file (if one is open) and opens a new file.

Open Existing File

 This button closes the current file (if one is open) and launches the *Open* dialog to enable you to select an existing file to open.

Save File

 This button saves the file under its current name or, if you have not named the file, launches the *Save As* dialog to enable you to provide a new file name.

Cut Selected Item

 This button is not currently enabled in *CBECC*.

Copy Selected Item

 This button enables you to copy the selected item on the tree control (along with any child components) to the Windows clipboard. The *Copy* button is not available from within program dialogs, but you can use the keyboard equivalent, Ctrl+C, to copy selected text.

Paste Contents of Clipboard

 This button enables you to paste components copied from the tree control to the selected location in the tree control (provided that location is compatible with the stored component). The *Paste* button is not available from within program dialogs, but you can use the keyboard equivalent, Ctrl+V, to paste text from the Windows clipboard to the selected input field.

Print

 This function is not available in CBECC.

Building Creation Wizard

 This function is not available in CBECC.

Perform Analysis

 This button enables you to launch a compliance analysis using the currently loaded building description. The behavior of this button is identical to the Tools menu option. You must save the current building description before performing the analysis.

Compliance Reports

 This icon opens an approved *CBECC Report* in your local document viewing software; typically Acrobat Reader. The behavior of this button is identical to the Tools menu option - "View Compliance Report". You cannot open an approved report unless an analysis has been performed and the model has not been modified since the analysis has been performed. This button may or may not be enabled in this version of the software.

About California Building Energy Code Compliance Software

 This button enables you to view program license and version information.

Print Preview

 This function is not available in CBECC and will be removed in future versions.

Help

 Not yet implemented. For help with the program, please refer to this Quick Start Guide.

Return to Quick Start Main Menu

Main Screen

The main screen of the *CBECC* program is used primarily for editing building descriptions. There are two folder tabs at the top of the main screen—Envelope and Mechanical. These tabs provide different views of the building description and provide access to two different subsets of the building description data.

Return to Quick Start Main Menu

Right Mouse Button Menu Options

The *CBECC* program makes extensive use of the menu accessible by clicking the right mouse button. The functions available through these menus depend on whether you are on the main screen or in an input dialog window.

Main Screen Right Mouse Menu. When clicked over a building component, the following choices are available:

- *Edit* – Opens the input dialog window for the selected component
- *Rename* – Enables you to rename the selected component

- *Delete* – Deletes the selected component
- *Copy* – Copies the selected component with all of its child components
- *Paste* – Adds copied components and their children to the selected component
- *Move Up in list, Move Down in list* – Moves the component up or down in the list of components that share a common parent. The input file is reordered accordingly. HVAC components are reordered and will be simulated with components in the displayed order, except for fans which are ordered based on the Fan Position parameter. For example, an evaporative cooler placed before or after a cooling coil will have different effects in the simulation.
- *View Space Footprint* – Displays in your browser a diagram of the space (available for space components only)
- *Expand/contract* – Expands or contracts the list of children components attached to a selected component
- *Create* – Enables you to create new child components for the selected component

Input Dialog Right Mouse Menu. When clicked over an input value in the window, the following choices are available:

- *Item Help* – Not yet implemented. Accesses Help information applicable to the selected input field.
- *Topic Help* – Not yet implemented. Accesses Help information applicable to the selected component.
- *Restore Default* – Returns the value of the field to its default value (if applicable)
- *Critical Default Comment* –Not yet implemented. Opens a dialog enabling you to enter a justification for overriding values designated by the Code as critical defaults, i.e., a value that should only be overridden with special justification.

Return to Quick Start Main Menu

Building Tree Controls (Parent/Child Relationships)

In order to analyze a building's energy use, it is necessary to track relationships among building components. *CBECC* displays these relationships using the familiar tree control, found in Windows™ Explorer and many other applications. For example, under the Envelope tab, exterior walls are shown as parents to windows (windows are connected to exterior walls and appear underneath walls) and children to spaces. The tree controls vary in the components they display and depend on which folder tab is currently selected.

Use the Tree Control for Rapid Editing

The tree control can be used to move and copy components or groups of components. To move a component, just drag and drop. If an association isn't allowed, the program will prevent the move from being carried out. To copy a component, select the component, copy, and paste. It is advisable to rename

copied components to maintain readability. Whenever parents are moved, copied, or deleted, all related child components are also moved, copied, or deleted.

Components shown on the tree can be moved using a drag-and-drop technique to other components provided it results in a compatible parent-child relationship. For example, you can drag a window onto a different wall, but not vice versa. Re-ordering of child objects assigned to the same parent is currently not supported.

A set of right mouse menu edit commands can be used with the tree control. These are described in the Right Mouse Button Menu Options section. Double-clicking on any component on the tree opens its input dialog window.

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Input Dialog Windows

The attributes of each building component can be edited by opening the input dialog window for the component. The dialog can be opened by double-clicking on the component on the tree control, using the *Edit* option on the right mouse menu, or using the *Edit Component* option on the *Edit* menu. (The tree control does not appear until you have created a project description using the wizard or loaded an existing project file [Ctrl+O]).

In keeping with good practice for use of any software, we recommend that you save your building description often and revise the file name once you have substantial effort invested in editing the description under the current file name.

Background Colors

The following background color convention has been used in displaying data on the dialogs:

- White background = available for user input
- Gray background = not user editable

Text Colors

The following text color convention has been used in displaying data on the dialogs:

- Dark blue or cyan text = default values as defined by the current ruleset
- Red text = values that have been changed from their default values

For information on editing features available from the input dialog windows, see the Right Mouse Button Menu Options section.

To understand what information you are required to enter, see the Status Bar section.

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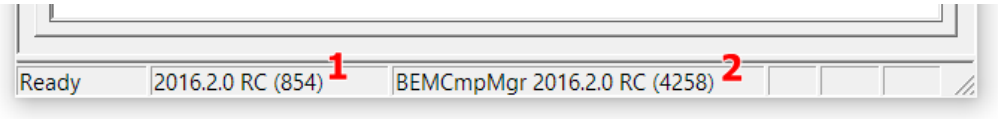
Status Bar

The second and third panes of the program status bar now report detailed version IDs of (1) the software and (2) the ruleset that is referenced by the project currently loaded into the program:



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Defining New Components

There are two main ways to define new components (e.g., walls or equipment) in the main program interface.

Define a New Physical Component

To define a new physical component, follow these steps from the Main Program Screen:

- Right-click on the component on the tree control to which you want to add the new component.
- Select *Create*, then the type of object you want to add. (Only applicable component types will appear on the list.)
- Accept the default name, parent, and existing component to copy from or edit these fields and click OK.
- Edit the input fields with white backgrounds to describe the new component and click OK.

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Deleting Project Files

If you have created multiple projects under different project names, you may want to delete project files to free up hard disk space on your computer. By default, project files are stored in the C:\Users\<your username>\My Documents\ CBECC 2025 Projects\ directory, although where the files are stored may differ on your computer depending upon where you installed the program and if you selected a different location for storing files.

In the Projects folder, you will find several files with the same project name you used but with differing file extensions. If you have no further use for information on a project, delete all files using the primary file name. If you would like to retain a project but store it as efficiently as possible, delete all files using the primary file name EXCEPT the one having a .cibd (input building design) file name extension. The other project files are recreated when an analysis is performed, with the exception of the project .log file. The log file lists compliance analysis warnings and errors shown in the UI, as well as other information related to processing/simulating models. Each time analysis is performed; new messages are appended to the end of this file, and should be reviewed when troubleshooting your compliance analysis.

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How to Report a Problem

This software is released for testing purposes and we anticipate the user running into errors and problems. We appreciate your willingness to help us make progress by taking the extra time to document and report issues in a way that will help us fix them quickly.

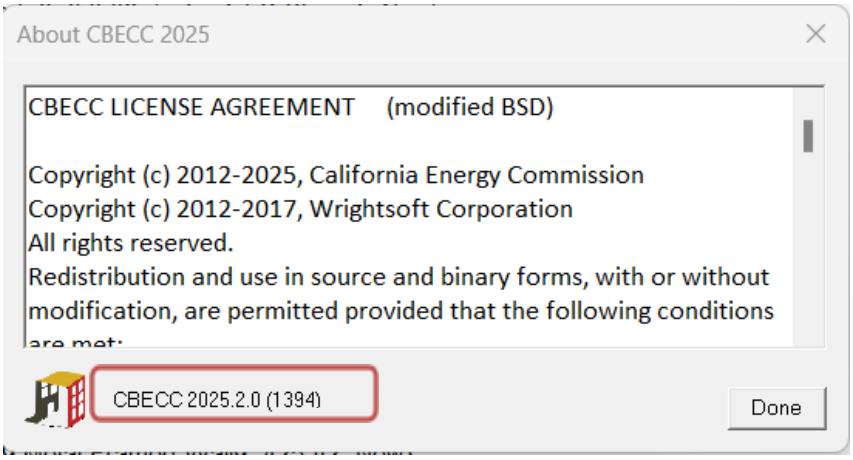
When you come across an issue, please submit the issue by sending an email to:

Nonresidential/Multifamily CBECC Support <cbecc.com@energy.ca.gov>

Single Family Residential CBECC Support <cbecc.res@energy.ca.gov>

And include as much of the following as possible (copy and paste this template into your email):

- Type of Issue
- CBECC version (Version can be found in the Help-> About menu) and is represented as show below: CBECC 2025



- Describe the error, using as much detail as possible.
- List the steps taken to produce the error, using as much detail as possible.
- If there is an error message, what is the message? If possible, take a screenshot of the error message and attach it to the email as a file.
- Please attach your <ProjectName>.cibd22 file. This is the file you open and save from inside CBECC. By default, this file is located in the following directory, C:\Users\<your username>\My Documents\CBECC 2025 Projects.

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License Agreement

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