



# California Emission Estimator Model (CalEEMod<sup>®</sup>)



**CAPCOA Update**

**October 10, 2017**



# Upgrades

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1. Incorporate % reductions from 2016 update to Title 24, Part 6 – Building Energy Efficiency Standards
2. Build new interactive logging and tracing feature to capture and report errors
3. Moved the installer to Wix which is more stable than InstallShield
4. Separated installation folder from the working folder to allow for instantaneous closing of the model install of having to wait for cascading defaults
5. Implemented a function to check if fleet mix for each Land Use SubType sums to 100% and give warning message if it does not.



# Additional Fixes

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1. The rolling calendar for construction phases was fixed.
2. The process of loading/opening an existing project file was corrected so that the user-defined fleet mix and user-defined operational year will be preserved.
3. Fixed a bug that the mitigated consumer product emissions presented in summer/winter report would not be correctly calculated when Parking Land Use Type is selected.
4. Issues with generating a report when CO<sub>2</sub> Equivalent GHG (CO<sub>2</sub>e) is selected or user-defined Phase Name is provided, were fixed.
5. Fixed an issue that user-defined fleet mix is overwritten by defaults under certain conditions when loading an existing project file to CalEEMod.



## Additional Fixes (concluded)

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7. Fixed several issues that the comparison of user-defined values against defaults does not work properly.
8. Fixed several issues where checking/unchecking the “Default” button on multiple pages does not work properly.
9. Fixed miscalculation of the annual fugitive dust emissions for PM10 and PM2.5 (bug caused emissions to be overestimated for projects with multiple construction years)
10. Fixed a bug that records incorrect value when there is a comma inserted in the total number of construction days.



# 2016 Update to Title 24, Part 6

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CalEEMod.2016.3.1

Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Cascade Defaults

### Operational - Energy Use

Using Historical Data

Import csv Default Undo

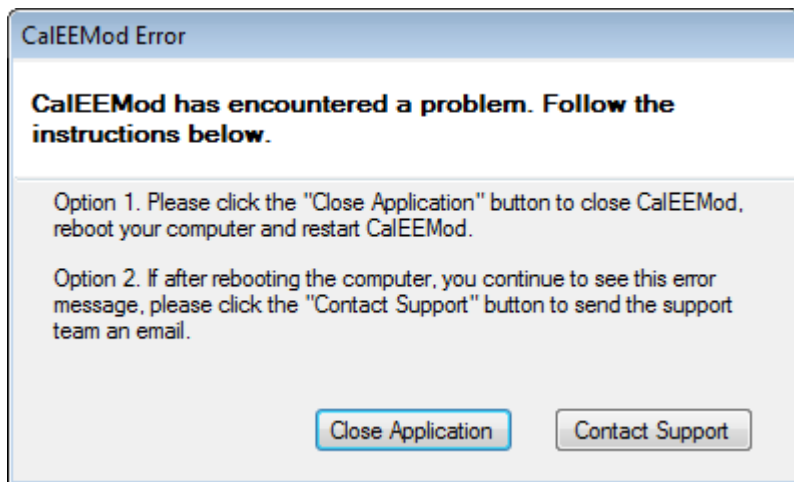
Land Use Subtype	Title-24 Electricity Energy Intensity (KWhr/size/yr)	Nontitle-24 Electricity Energy Intensity (KWhr/size/yr)	Lighting Energy Intensity (KWhr/size/yr)	Title-24 Natural Gas Energy Intensity (KBTU/size/yr)	Nontitle-24 Natural Gas Energy Intensity (KBTU/size/yr)
Convenience Market (24 Hour)	4.2	3.23	6.43	1.16	0.49
Gasoline/Service Station	2.36	5.75	3.2	13.71	4.45



# New Technical Support Feature

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- New Interactive Logging/Tracing Feature to capture and report errors
- Two categories of errors:
  1. Handled error - when CalEEMod encounters an error and recognizes it, the screen will show a message to the specific type of error.
  2. Unhandled errors - when CalEEMod encounters that it doesn't recognize, a pop up window will appear:





# New Technical Support Feature (concluded)

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- Contact Support button will automatically launch end user's default email system and start a new email for Trinity to investigate

CalE

FILE MESSAGE INSERT OPTIONS FORMAT TEXT REVIEW ADOBE PDF

Cut Copy Paste Format Painter Clipboard

Basic Text

Address Book Names Check Names Attach File Attach Item Signature

Fold High Low

To... CalEEMod\_TechSupport@trinityconsultants.com

Cc...

Subject CalEEMod Support

Attached Log.log (82 KB)

Send

CalEEMod support team,

See files attached and the issue described below.

\*\*\*\*\*

Instructions to senders:

1. Log.log file is attached to this email automatically, which has information for developers to debug;
2. CalEEMod input file if there is any is also automatically attached;
3. Please describe in detail what have been done to help reproduce the actions that lead to the error pop-up message;
4. Please attach output files if there is any;
5. Please attach any screenshots that may be relevant.



# Fixes to Rolling Calendar and CO2e report

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CalEEMod.2016.3.1

Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Cascade Defaults

### Project Characteristics

**Project Detail**

Project Name: test\_20160707

Project Location: Air District | South Coast AQMD

Windspeed (m/s): 2.2

Precipitation Frequency (days): 31

CEC Forecasting Climate Zone: 11

Land Use Setting: [Dropdown]

Start of Construction: Thursday, July 7, 2016

Operational Year: 2018

**CEC Forecasting Climate Zone Look-up**

To look up the CEC Forecasting Climate Zone for this project, click the orange button.

**Utility Information**

\*If "User Defined" is selected, user must specify data source in Remarks

Select Utility Company: Southern California Edison

CO2 Intensity Factor (lb/MWh): 702.44

CH4 Intensity Factor (lb/MWh): 0.029

**Pollutants**

Select All Clear All

Pollutant Selection	Pollutant Full Name
<input checked="" type="checkbox"/>	Reactive Organic Gases (ROG)
<input checked="" type="checkbox"/>	Nitrogen Oxides (NOx)
<input checked="" type="checkbox"/>	Carbon Monoxide (CO)
<input checked="" type="checkbox"/>	Sulfur Dioxide (SO2)
<input checked="" type="checkbox"/>	Particulate Matter 10um (PM10)
<input checked="" type="checkbox"/>	Particulate Matter 2.5um (PM2.5)
<input checked="" type="checkbox"/>	Fugitive PM10um (PM10)
<input checked="" type="checkbox"/>	Fugitive PM2.5um (PM2.5)
<input checked="" type="checkbox"/>	Biogenic Carbon Dioxide (CO2)
<input checked="" type="checkbox"/>	Non-Biogenic Carbon Dioxide (CO2)
<input checked="" type="checkbox"/>	Carbon Dioxide (CO2)
<input checked="" type="checkbox"/>	Methane (CH4)
<input checked="" type="checkbox"/>	Nitrous Oxide (N2O)
<input checked="" type="checkbox"/>	CO2 Equivalent GHGs (CO2e)



# Contact Information

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