SMAQMD Tips
for Using CalEEMod

Introduction

The California Emission Estimator Model (CalEEMod) assists project proponents, land use jurisdictions (lead agencies), consultants, and air districts in complying with the California Environmental Quality Act (CEQA) by estimating emissions of criteria pollutant and greenhouse gas emissions from development projects. Prior to approving a project, a lead agency is required by CEQA to determine if the project will have an impact on the environment, including air quality, and require appropriate mitigation for those impacts.

CalEEMod is intuitive and the User's Guide is well documented. The installation files, the User's Guide, and other supporting documents can be downloaded free of charge from www.caleemod.com.

SMAQMD staff developed the following Sacramento-specific guidance to assist users in recognizing critical components of the model. These SMAQMD Tips are organized by input screens.

The Project Characteristics and Land Use screens are the minimum required inputs for the model to calculate project emissions. SMAQMD encourages project specific information be entered if available.

Project Characteristics

1. Select <u>County</u> and <u>Sacramento</u> from the project location drop down lists.
2. Choose the climate zone by looking up the zip code or city/county name for the project. <u>The most common zone for Sacramento County is 6</u>, but some areas are in zones 2, 3 or 4. There is a look-up button to assist.
3. Use the urban setting if the project is located within the County's Urban Services Boundary (USB) otherwise use the rural setting. The USB map is available on the County of Sacramento's website:
   http://www.per.saccounty.net/Pages/PlanningandCommunityMaps.aspx.
4. Select a start of construction date to reset the default start date on the Construction Phase screen. Check that the construction timing coincides with the operational year selected for the project.
5. Operational years in the model include 2000, 2005, 2010-2035, 2040, 2045 and 2050. The model will round down to the nearest year and use that data if a year not specifically listed in the drop down list is entered.
6. Select <u>Sacramento Municipal Utility District</u> for the utility provider.
7. Provide SMAQMD with the rationale supporting energy intensity factors used that are different than the default.

Land Use

8. User-defined land uses are allowed, but the user must supply all data in the subsequent data input screens.

9. For commercial uses, the building size square footage should be entered into the model not the lot size.
10. If entering a mixed-use, multi-story project, enter each land use separately, then assign the total project acres to the residential portion and zero out the acreage on the commercial portions.
11. Enter parking lots, structures and other paved areas for commercial uses as a separate land use than the commercial and retail land uses to accurately calculate grading and asphalt emissions.

Construction
12. The default equipment list and construction schedule is only valid for 35-acre and smaller projects that have buildings of no more than 4 stories tall. Otherwise, the proponent must provide project specific information.
13. The default construction data does not include material haul amounts (dirt, fill, concrete, etc.), or demolition or trenching phase information. Enter project specific information if the project includes these activities.
14. Changes to the construction phase dates and timing do not trigger automatic changes to the equipment lists. Equipment list changes must be done manually.
15. A general rule for construction equipment is that if the construction schedule is shortened by ½, the number of equipment needs to be doubled.

Operational
16. Mobile: Vehicle Emissions – Consult with SMAQMD before modifying vehicle emission factors.
17. Mobile: Fleet Mix – Consult with SMAQMD before modifying the fleet mix.
18. Mobile: Road Dust – If the project will have unpaved roads during the operational phase, select the CARB Unmitigated Unpaved Road Statewide Emission Inventory Method option for calculating particulate matter emissions for unpaved road dust.
19. Area: Hearths – For Sacramento County, the model assumes no hearths are included in residential projects. If the project includes hearths, modify the inputs and mitigate excess emissions. SMAQMD's Rule 417 regulates hearth installations.
20. Water and Wastewater – The defaults represent the Sacramento Regional County Sanitation District wastewater treatment plant. If the project is not served by this plant, consult with the lead agency to determine the appropriate wastewater treatment types and percentages.
21. Solid Waste – If the information is known, override the default landfill gas capture types with the type of system employed at the landfill that will serve the project.
22. Stationary Sources – Consult with SMAQMD before using the stationary sources screens.

Mitigation
23. Select a "project setting" type on the Mitigation, Traffic, Land Use & Site Enhancement screen for the reductions from selected mitigation measures to be calculated properly.

24. SMAQMD recommends using guidance from CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* (chapter 6) and the *CalEEMod User's Guide* (section 4.12) when selecting the applicable project setting.

25. SMAQMD's *Recommended Guidance for Land Use Emission Reductions* provides guidance on mitigation measures that can be used in CalEEMod and the requirements that must be met to obtain credit for the selected measures.

Reports

26. Provide the CalEEMod input files and the summer, winter and annual reports for each model run conducted for a project for SMAQMD review.

General Advice

27. If using a CSV file to upload project information into CalEEMod, delete any rows that do not have data before importing the file.

Questions on CalEEMod can be directed to the following SMAQMD staff for projects being analyzed in Sacramento County and its incorporated cities.

STAFF	PHONE	E-MAIL	AREAS
Paul Philley	916-874-4882	pphilley@airquality.org	CEQA and Land Use Section Program Coordinator
Teri Duarte	916-874-4816	tduarte@airquality.org	City of Sacramento
Rachel Dubose	916-874-4876	rdubose@airquality.org	County of Sacramento, City of Citrus Heights
J.J. Hurley	916-874-2694	jhurley@airquality.org	Cities of Sacramento and Folsom
Karen Huss	916-874-4881	khuss@airquality.org	City of Galt
Charlene McGhee	916-874-4883	cmcghee@airquality.org	County of Sacramento, City of Elk Grove
Molly Wright	916-874-4207	mwright@airquality.org	City of Rancho Cordova

General CalEEMod questions can be directed to Karen Huss at 916-874-4881 or khuss@airquality.org.

Potential model errors should be reported to inquiry@caleemod.com. A state-wide air district working group meets regularly to discuss necessary CalEEMod updates.