What is CalEEMod?

- Quantifies criteria pollutants and GHG emissions
- 63 land use subcategories
- Applies approved emission factors, established methodology, and latest survey data
- Statewide model – all 35 air districts
What is CalEEMod?

- Calculates for air district, county, air basin, state level
- Calculates emissions from construction and operation
- Calculates direct and indirect GHG emissions (e.g., energy use, water/wastewater use, solid waste disposal, and vegetation planting and/or removal)
- Calculates benefits from mitigation measures
Design Specifics

- Flexibility in usage
  - defaults allow minimal amount of required input
  - provides ability to insert spreadsheet for large projects (e.g., construction schedule, construction equipment list)

- Regional defaults
- Ability to change defaults
- All equations and sources verified and documented in appendices
New Features

- More GHGs
- Additional land uses
- Vendor trips based on the latest SMAQMD survey
- New consumer product methodology
- New trip rates used – maximum (daily), weighted average (annual)
- Default diverted and pass-by trips included
Expected Use and Interest

- Variety of applications – specific project, mixed use, plans, inventory, *user defined* land uses
- Statewide users include:
  - environmental consultants
  - city and county planners
  - air quality districts
  - CEQA/NEPA document reviewers
  - developers
  - decision-makers
- Interest expressed by National Association of Clean Air Agencies (NACAA) for national model
Importance to California Air Districts

- Integrity of air quality analysis
- Standardize air quality analysis
- Substantial evidence supporting tool
- Mitigate projects as feasibly possible
- Comply with requirements (e.g., CEQA, GHG, planning, etc.)
- Ensure ongoing maintenance and upgrades
Current Status

- Over 6,000 downloads since initial release
- California training classes
- Online training segments being produced
- Website - www.caleemod.com:
  - Modeling files
  - User’s Guide/User’s Tips
  - FAQs
  - Subscriber sign-up
  - Upcoming events
- Upgrades to make model faster and new features
- New version expected to be release Spring 2012
User’s Tips

- Tips compiled to assist User in operation
- Guidance includes:
  - operational information
  - proper modification of defaults
  - program limitations
  - program flexibility
  - current inconveniences/bugs
- Future upgrade action on items
- Tips are available online
- Tips to be modified after next upgrade
Technical Paper

- Provides understanding as to the development of the model
- Prepared by statewide Focus Group
- Highlights:
  - New Features
  - Methodology Reasoning and Differences
  - Default References
- Available online
Advice to Users

- Calculation tool designed for range of users
- Understand default information
- Provide regional defaults
- Utilize site specific data
  - traffic studies
  - water usage
- GHG Mitigation
  - take advantage of criteria pollutant co-benefits
- Dynamic tool; will require ongoing upgrades
Future Upgrades and Maintenance

- EPA’s AP-42 emission factors for paved roads
- CARB’s EMFAC2011 and updated OFFROAD emission factors
- Update platform to optimize code and improve speed/model efficiency
- New features (e.g., emissions from off-road equipment used in operation; energy from elevators/lighting/ventilation in parking structures)
- Update any air district specific data
- Functionality inconveniences (reloading issues, etc.)
- Update construction profile (e.g., schedule, type, HP)
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