

DOCKETED

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Comments on the Palmdale Energy Project (PEP or project) modeling protocol.

Air Quality (Nancy Fletcher)

In general the modeling protocol did not provide enough detail to ensure Energy Commission requirements under CEQA would be met. At this point, the project details may not be known; however, certain issues need to be addressed either in a revised protocol or in the Amendment to the Application for Certification. More information on the proposed methodologies for evaluating potential air quality and public health impacts from construction, commissioning and operation activities is needed as described below.

1. Potential impacts from construction emissions were not specifically addressed in the modeling protocol. The protocol indicated the existing site is on undeveloped land. Construction activities can generate emissions from onsite construction equipment exhaust, onsite motor vehicle exhaust, onsite construction fugitive dust and offsite motor vehicle emissions. Please include the methodologies and sources as appropriate for determining emissions from these categories, as well as the proposed modeling methodology to assess the impacts of the calculated construction emissions.
2. Potential impacts from construction emissions should take into consideration both onsite and offsite activities for linear components such as pipelines and transmission lines related to the project. The modeling protocol indicated the project would require the construction of an approximately 8.7 mile pipeline. The protocol did not indicate the location of the pipeline with respect to the proposed project. Please include in the construction impact assessment, both potential offsite and onsite emissions associated with the construction of all linear components.
3. Potential impacts from commissioning were not specifically addressed in the modeling protocol. During the commissioning period it is common for the turbines to be operated at various load rates and without fully operating emission control systems. Therefore, there is the potential for emissions from commissioning operations to be different than non-commissioning operations. Please evaluate the impacts from the commissioning period for the proposed project.
4. The modeling protocol needs to provide detail regarding the emissions sources included in the impact assessment from operation activities. Please clearly indicate what emission sources will be included in the operations modeling including emergency and auxiliary equipment and fully describe how they will be modeled. In addition, please include information on the emission factors used to assess emissions from all included equipment, such as vendor data and any associated assumptions.
5. The modeling protocol needs to provide detail regarding the selection of operating scenarios used to assess the equipment emissions and associated impacts. For example, turbine emissions and stack parameters can vary depending on ambient temperature and load. In addition changes in operation such as startup and shutdown can affect the turbine emissions. Please include an explanation as to how worst case air quality impacts during normal operations will be considered for the project with respect to the operating scenarios modeled.

6. The modeling protocol indicated the project is expected to trigger Prevention of Significant Deterioration (PSD) permitting requirements. The protocol indicated a separate modeling protocol and permit application would be prepared and submitted EPA Region 9. Please provide copies of these documents to CEC when they are submitted to EPA Region 9.
7. Please provide more information on the representative background values selected. Table 6, Measured Baseline Air Quality Data, includes measured pollutant concentrations obtained from surrounding air monitoring sites. These values are considered to be representative of background levels at the proposed project site. The PM 10 data in the table includes the 24-hr H2H NAAQS. Please provide a more detailed explanation of why the 24-hr H2H NAAQS data was included instead of the 24-hr maximum. In addition, please include a more detailed explanation to the selection of the estimated background air quality values listed in Table 7. The text states Table 7 values were selected based on the data presented in Table 6. However the values listed in Table 7 are not clearly correlated to the values listed in Table 6.
8. The modeling protocol indicated a Tier 3 analysis may be needed to assess 1-hour NO₂ concentrations for comparison with the ambient air quality standards. Please provide documentation of equipment specific NO₂/NO_x ratios used for the analysis when selected.
9. The modeling protocol indicated the emission sources for the cumulative analysis would be determined in consultation with the appropriate agencies. Please keep in mind the cumulative analysis should include all reasonably foreseeable projects within a six mile radius, i.e. projects that have received construction permits but are not yet operational, and those that are in the permitting process or can be reasonably expected to be in the permitting process in the near future. The included sources in the cumulative impacts assessment should be limited to new or modified sources causing a net increase of 5 tons or more per modeled criteria pollutant.
10. Additional modeling may be required to assess impacts to biology. Impacts from nitrogen deposition on biological reserves/habitats around the project site may need to be assessed. Before any nitrogen-deposition modeling is conducted, it is recommended the petitioner consult with Energy Commission Biology staff to determine if there are any sensitive biological reserves that would warrant nitrogen deposition modeling.
11. Additional modeling may be required to assess impacts to traffic and transportation. A plume vertical velocity analysis may need to be performed for the gas turbine stacks and air cooled condenser. Additional exhaust information, such as exhaust temperature, exhaust velocity per cell and exhaust flow rate may need to be provided.

Public Health (Ann Chu):

1. Page 20, Screening Health Risk Assessment: The HARP On-Ramp was an interim tool used to import outside air dispersion runs into the HARP version 1 series. This tool is no longer necessary since the latest version of HARP can read the air dispersion plot files directly.
<http://www.arb.ca.gov/toxics/harp/harpfaq.htm>
2. Page 21, Construction Impacts Analysis:
 - a. Please provide data tables in the amendment to demonstrate emissions reductions.
 - b. Is Valley Fever endemic in this area? Please have a brief discussion regarding this issue.

- c. Please conduct health risk assessment for construction by using OEHHA 2015 Guidance and latest version of HARP.