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Docket Number:	02-AFC-01C
Project Title:	Sonoran Energy Project (formerly Blythe Energy Project Phase II) - Compliance
TN #:	211558
Document Title:	AltaGas's Response to Riverside County Airport Land Use Commission's PSA Comment Letter
Description:	N/A
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Organization:	CH2M HILL
Submitter Role:	Applicant Consultant
Submission Date:	5/19/2016 9:11:31 AM
Docketed Date:	5/19/2016

AltaGas | Sonoran Energy Inc.

May 18, 2016

Mr. Edward C. Cooper, ALUC Director
Airport Land Use Commission
Riverside County
4080 Lemon Street
Riverside, CA 92501

Re: Sonoran Energy Project (02-AFC-1C) Preliminary Staff Assessment
Response to Preliminary Staff Assessment Comments

Dear Mr. Cooper:

The Airport Land Use Commission (ALUC) issued a comment letter on the California Energy Commission's (CEC) Sonoran Energy Project (SEP) Preliminary Staff Assessment (PSA) on February 29, 2016. In this letter, the ALUC expressed concerns about three areas where it believes SEP may create adverse aviation safety impacts that are incompatible with the aeronautical activity at the Blythe airport. These areas are thermal plumes, evaporation ponds, and transmission lines. This letter addresses these issues in the order presented in the ALUC's letter.

Background

The project proponent, AltaGas Sonoran Energy Inc. (AltaGas), proposed to amend its existing CEC license for the SEP (formerly known as the Blythe Energy Project II). The existing CEC license for SEP allows for the construction and operation of a combined-cycle power plant consisting of two combustion turbine generators, two heat recovery steam generator with exhaust stacks, a steam turbine generator, an auxiliary boiler with an exhaust stack, and an 11-cell cooling tower. AltaGas is proposing to amend the project's CEC license to construct and operate a combined-cycle power plant consisting of a single combustion turbine generator, one heat recovery steam generator with an exhaust stack, a steam turbine generator, an auxiliary boiler with an exhaust stack, and a 10-cell cooling tower. Overall, the scope of the amended SEP reduces the number of project features, resulting in environmental impacts that are similar to, or less than, those assessed during the original CEC license. It is important to remember that this is not a de novo review of the SEP; rather, it is an assessment as to whether the proposed project amendment would result in significant adverse impacts as compared with the currently licensed project.

1. Thermal Plumes

The ALUC letter states that *"the Project is expected to result in even more significant aviation safety impacts resulting from thermal plumes than its predecessor (i.e., the BEP II project)"*. This statement is simply incorrect. In the SEP PTA, AltaGas determined that the combined cooling tower plume height would exceed 4.3 meters per second (m/s) up to a height of 1,046 feet above stack top (1,088 feet above ground level [AGL]). This analysis was performed to be consistent with prior CEC staff analyses, and not because AltaGas believes that the 4.3 m/s criterion is appropriate. In fact, the 4.3 m/s criterion has no current basis in any regulatory context; guidance issued in 2012 by the Australian Government Civil Aviation Safety Authority (the source of the original 4.3 m/s value) establishes a criterion of 10.6 m/s. A calculated exceedance of that threshold would warrant mitigation measures – measures which have already been implemented.

In addition, CEC staff's evaluation of cooling tower exhaust plume turbulence in the BEP II 2005 Final Staff Assessment (FSA) did not determine a combined cooling tower plume height that would exceed 4.3 m/s. Instead, CEC staff used the SCREEN3, SACTI, and CSVP models and concluded that *"the plume will rise well over 500 feet above ground, which would indicate the plume velocity would likely still be quite high at 500 feet above ground... it is expected that the plume average velocity at 500 feet would be*

greater than 4.3 m/s (846 fpm) under the proper ambient conditions." Thus, there is no basis for concluding that the cooling tower plume from SEP would exceed a velocity of 4.3 m/s at an elevation higher than that calculated for the original BEP II project since no such elevation was determined for the BEP II project.

Further, the Staff did not evaluate potential thermal plume impacts from the amended BEP II project design that was approved in 2012, despite the fact that the modification included an increase in the size of the cooling tower. In fact, the analysis of the BEP II cooling tower thermal plume velocity for the most recently approved project design using the Spillane methodology shows that the velocity of the combined thermal plume from the BEP II cooling tower would have exceeded 4.3 m/s up to approximately 1,131 feet AGL, 43 feet higher than the 1,088 feet AGL height for the SEP cooling tower plume. Therefore, the statement that the SEP cooling tower plumes would have higher velocities than the BEP II plumes is incorrect and should not be relied upon to draw conclusions regarding significance. To the contrary, impacts of the SEP cooling tower thermal plumes would be less than, or equivalent to, what is currently licensed.

The ALUC letter also notes that *"based on the CEC staff's proposed use of a dry cooling tower, which would emit invisible plumes rather than visible water vapor, CEC staff's preliminary analysis shows a significant increase in thermal plume velocity when compared to a wet cooling tower."* AltaGas agrees with the ALUC that the CEC staff's proposal to require SEP use dry cooling could result in significant impacts above the current baseline conditions and are not analyzed in the PSA. During the licensing of BEP II, the Commission determined that dry cooling was technologically feasible in the desert climate of the Blythe area but was "neither environmentally nor economically reasonable" and that it was "not practically feasible for this project."[1] Since SEP II was licensed, desert conditions have not changed to alter this conclusion.

The ALUC requests that airport-related impact mitigation be at least as stringent, if not more stringent, than the mitigation for the BEP II as presented in Condition of Certification TRANS-9. In the PSA for SEP, the CEC Staff used the same BEP II Condition TRANS-9 (changing only the name of the project), which requires the following measures be achieved prior to commencing SEP's construction.

> **TRANS-9** The project owner shall not commence construction of SEP until the following are accomplished:
>
> 1. A remark is placed on the Airport's Automated Surface Observation System (ASOS), or equivalent broadcast, advising pilots to avoid low altitude direct overflight of the power plant;
> 2. The VFR traffic pattern to runway 26 is changed from left-hand turns to right-hand turns; and
> 3. A runway, other than runway 26, is designated as the primary calm wind runway.

On March 16, 2016, CEC staff met with Gary Cathey, Chief of California Department of Transportation, Division of Aeronautics, to discuss the SEP's impacts on the Blythe airport.[2] During this meeting, Mr. Cathey noted that circumstances at the Blythe airport had changed since the 2005 BEP II decision and that current operating conditions are sufficient for pilots to avoid potential plume impacts from BEP and SEP. He stated that no additional changes to the airport's operation were appropriate or necessary for the SEP. We encourage the ALUC to consider Mr. Cathey's assessment in evaluating whether the proposed TRANS-9 conditions are necessary or appropriate.

2. Evaporation Ponds

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[1] http://www.energy.ca.gov/2005publications/CEC-800-2005-005/CEC-800-2005-005-CMF.PDF See pages 8, 245, 265-266, 279, 283, and 371.

[2] http://docketpublic.energy.ca.gov/PublicDocuments/02-AFC-01C/TN211157_20160420T104311_Sonoran_Energy_Project__Record_of_Conversation_California_Depar.pdf

The ALUC letter asserts that the proposed use of the evaporation ponds at SEP "would result in a new significant impact" to aviation safety, and suggests the use of zero-liquid discharge (ZLD) to avoid alleged aviation safety hazards associated with evaporation ponds being wildlife attractants. In response to this and similar comments, AltaGas has altered its wastewater disposal method by proposing to discharge SEP's wastewater to the BEP's existing evaporation ponds.[3] The use of BEP's existing evaporation ponds for SEP wastewater discharge will not alter aviation safety conditions at the Blythe airport. In addition, the BEP has installed and is using bird deterrents (propane cannons) to discourage birds from using the existing evaporation ponds.

3. Transmission Lines

The ALUC letter states that on page 4.5-8, the PSA concludes that the proposed SEP 161-kilovolt (kV) transmission line would exceed 70 feet in height. The PSA incorrectly identified the transmission line height and Section 3.6 of AltaGas's Petition to Amend[4] correctly states the 161-kV transmission line will not exceed 70 feet in height. AltaGas's PSA comments (dated March 1, 2016[5]) also noted the correct transmission line height of less than 70 feet.

The ALUC letter also raises questions about the potential for significant cumulative impacts that would address aviation safety, building upon the individual impacts identified and addressed above. Among other statements, the ALUC letter suggests that proposed development at the Blythe Energy facility could result in "the potential for a 'wall' of thermal plumes in close proximity to the Airport." There is no credible evidence to support such an allegation, and this kind of hyperbole does little to foster constructive discussions. AltaGas remains open to discussing the potential need for, and implementation of, measures to address ALUC's concerns.

AltaGas appreciates ALUC's consideration of the above comments and asks that if you have any questions, please contact Mr. Jerry Salamy of CH2M at 916-286-0207.

Sincerely,

Scott Valentino
Vice President
AltaGas Services (US) Inc.

cc: Mr. John O'Brien AltaGas Power Holdings (U.S.) Inc.
Mr. Nick Galatti AltaGas Power Holdings (U.S.) Inc.
Mr. Kyle Banbury, AltaGas Power Holdings (U.S.) Inc.
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[3] http://docketpublic.energy.ca.gov/PublicDocuments/02-AFC-01C/TN210635_20160307T170133_SEP_Revised_Wastewater_Disposal_Method.pdf

[4] Page 3-95 of http://docketpublic.energy.ca.gov/PublicDocuments/02-AFC-01C/TN205652_20150807T142630_Blythe_Energy_Project_Phase_II__Petition_to_Amend_08072015.pdf

[5] Page 59 of http://docketpublic.energy.ca.gov/PublicDocuments/02-AFC-01C/TN210578_20160301T153135_Project_Owner's_Comments_on_Staff's_Preliminary_Staff_Assessment.pdf