

Memorandum

To: Commissioner Jeffrey Byron, Presiding Member
Commissioner Anthony Eggert, Associate Member

Date: October 21, 2010
Telephone: (916) 654-4640

From: **California Energy Commission – Felicia Miller**
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Project Manager

DOCKET**08-AFC-9**DATE OCT 21 2010RECD. OCT 21 2010

Subject: **Palmdale Hybrid Power Project (08-AFC-9) Response to Additional Committee Questions Concerning Staff's Proposed Alternative T-line Analysis**

In response to the Committee's questions at the October 18, 2010 Palmdale Scheduling Conference regarding staff's alternative transmission line analysis, staff files the following comments for the proposed Palmdale Hybrid Power Project (PHPP).

Preliminary Staff Assessment to Final Staff Assessment

On October 15, 2010, staff stated in our PHPP Committee Conference Response that a Final Staff Assessment (FSA) could be published by November 20, 2010. The FSA would contain an alternatives analysis that could be augmented by a December 20, 2010 addendum which would contain detailed analysis of two alternative transmission routes for Committee consideration and possible adoption.

Alternative Transmission Route Addendum

As discussed at the Committee Conference, in response to the March 8, 2010 Los Angeles County comment letter to the Preliminary Staff Assessment (PSA), staff took a much closer look at the underground alternative transmission route, and determined staff's findings in the PSA were incomplete. Upon further review, it was apparent that there were a number of transmission route alternatives that could potentially reduce environmental impacts, and appear to be logistically, technologically and, economically feasible. Based on the Garamendi Principles, the reduced distances of the possible alternative routes, and their apparent feasibility, staff believes further analysis of these options is warranted.

Staff's proposed schedule provides an additional 30 days from the date of the FSA publication to file an Alternative Transmission Route Addendum on December 20, 2010. The additional time beyond the FSA publication date would provide staff the opportunity to complete a more detailed analysis of two alternative routes for the purpose of making a possible recommendation to the Committee to adopt an alternative transmission route, rather than the applicant's proposed route. This would entail a more comprehensive analysis of the proposed alternative routes including information gathered from site visits,

ground surveys, document research and feasibility studies and would also include an economic analysis. Staff is proposing to do all of the work and no additional information would be required of the applicant.

Staff's proposed addendum would include transmission route alternatives for both an underground route, as well as an above ground route. Although staff has concluded that environmental impacts associated with the applicant's proposed route could be mitigated to less than significant, the two routes that staff is proposing to investigate further appear to be environmentally superior and reduce the impacts of the applicant's proposed transmission route.

Alternative Transmission Route #4 – Underground/Overhead Route

Staff has investigated the possible underground route identified and analyzed in the Application for Certification and has concluded that the route, with modifications which parallel the proposed underground gas and water lines, appears to be feasible. This 12.8 mile underground and above ground line is the most direct route for interconnection to the Vincent substation. This route would have 6.75 miles of underground, to avoid encroaching into Plant 42 airspace, and 6.1 miles of above ground transmission lines.

The underground transmission line would exit the proposed project site west along Avenue M-12 until it reached the city's proposed underground routes for gas and recycled water. The entire underground route is within the city limits of the City of Palmdale. The overhead portion of this route would extend south along Sierra Highway, following existing SCE rights-of way, some within city limits, until interconnecting at the Vincent substation. The southernmost portion of this route along Sierra Highway already has low-voltage distribution lines as well as high voltage 500 kV lines connecting at the Vincent substation. The underground portion would be located in the same trenches used for the project's water and gas lines, thereby reducing impacts within the developed city limits and reducing the cost from digging two trenches for linears to digging only one trench. It appears that increasing the width of the ROW to accommodate all of these linears is feasible. The underground route would reduce traffic and transportation impacts and would reduce visual impacts within the urban development area. Because the underground route would occur in already disturbed roadways, vegetation and wildlife habitat, especially that of the Mohave ground squirrel which is assumed to be present along the proposed transmission route, would not be disturbed and the potential to impact known or unknown cultural or archaeological resources would likely be reduced. In addition, the route is 22.8 miles shorter than the applicant's proposed route.

Alternative Transmission Route #5 – Overhead Route

Staff is also analyzing an above ground route which is similar to the applicant's alternative route along Division Street. Staff's route would avoid positioning the transmission line near a school site and near residential housing and follows

existing low-voltage transmission Right-of-Ways (ROWs). The route is entirely within the City of Palmdale, except for the southernmost portion of the route along Sierra Highway, which would be the same as staff's underground/overhead alternative route which would run south towards the interconnection point at the Vincent substation. The staff's alternative transmission route #5 above ground route would be approximately 14 miles long, which is 21.6 miles shorter than the applicant's proposed route. The route is located entirely within already disturbed land with existing utility ROWs, which staff believes would reduce visual impacts. In addition, because of the shorter route, staff anticipates the alternative route would likely result in reduced biological or cultural impacts as well. These anticipated results however, would be confirmed by the detailed analysis staff is proposing.

Alternative Transmission Route Feasibility Study

Before making our recommendation, staff investigated the feasibility of a number of alternative transmission routes. Besides the applicant's proposed overhead alternative routes, several other overland routes were considered including a route that follows West Avenue M, then proceeds south along the Interstate Highway 14, and another route that follows the Union Pacific railway corridor south along Sierra Highway. Staff eliminated these routes from consideration as we believed it would be difficult and potentially costly to negotiate ROWs with CalTrans and the railroad. Staff decided on an overhead route, similar to the route the applicant proposed, which follows existing transmission corridors, as established ROWs were already in place. Staff also considered the applicant's underground route, but decided on a modified version which follows the City's proposed underground gas and recycled water line. Locating gas, water and transmission in one ROW, reduces impacts within the developed city limits. Staff believes that increasing the width of the ROW to accommodate all linears is feasible.

The applicant states that a primary concern regarding undergrounding 230 kV transmission line is the additional cost the City of Palmdale would incur; as a public agency the city is charged with ensuring its project uses the most effective means of interconnection that does not incur significant impacts. Staff believe's alternative route #5 would cost less to construct than the applicant's proposed route and alternative #4 could be comparable in cost.

Staff believes that either of the alternative transmission lines have the potential to be constructed in a shorter time than the applicant's proposed transmission line, since the applicant does not have control over much of the defined corridor where the transmission line is being proposed. Negotiating leases or purchases of the corridor and/or completing eminent domain procedures can be time-consuming and staff believes our alternative transmission route options provide the applicant with a potentially shorter timeline in order to adhere to their applicant's proposed construction schedule.



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
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**APPLICATION FOR CERTIFICATION
For the *PALMDALE HYBRID
POWER PROJECT***

Docket No. 08-AFC-9

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(Revised 10/6/2010)

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DECLARATION OF SERVICE

I, Teraja Golston, declare that on, October 21, 2010, I served and filed copies of the attached (08-AFC-9) Palmdale – CEC Response to Additional Committee Question Concerning Staff's Proposed Alternatives T-Line Analysis. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [http://www.energy.ca.gov/sitingcases/palmdale/index.html]. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

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For filing with the Energy Commission:

☒ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);

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☐ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

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I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Original Signature in dockets

Teraja Golston