



CALIFORNIA ISO

California Independent
System Operator

Gary DeShazo
Director of Regional Transmission – North
(916) 808-5880

January 11, 2006

Mr. David Ore
PG&E Generation Interconnection Services
245 Market Street, Room 775, Mail Code N7L
San Francisco, CA 94105

**Subject: CPV Colusa Project
Preliminary Interconnection Approval**

DOCKET 06-AFC-9	
DATE	JAN 11 2006
RECD.	FEB 28 2006

Dear Mr. Ore:

The California ISO (CAISO) has reviewed the System Impact Study (SIS) for the CPV Colusa Project, a combined cycle plant with a maximum net output of 700 MW, which proposes to loop the Cottonwood-Cortina, Logan Creek-Vaca Dixon, Cottonwood-Vaca Dixon, and Glenn-Vaca Dixon 230 kV lines into the Project 230 kV switchyard. The SIS, dated September 19, 2005, was conducted by Navigant Consulting, Inc (NCI) with input from Pacific Gas and Electric Company (PG&E) and CAISO, as requested by the generation developer, E&L Westcoast, LLC.

Based on the information provided in the SIS, the CAISO is granting preliminary approval to interconnect the CPV Colusa Project to the CAISO Grid. Final approval will be granted upon the satisfactory completion of the Facility Study, and after an agreement regarding all system mitigation measures (including those outside CAISO's controlled grid affecting TANC, SMUD and WAPA) is reached among all involved parties. The Facility Study should be sent to the CAISO for review upon its completion. Please refer to the attachment to this letter for further information.

If you have questions about the CAISO review of this study, please contact Catalin Micsa at (916) 608-5704 (<mailto:cmicsa@caiso.com>) or myself at (916) 608-5880 (<mailto:gdeshazo@caiso.com>).

Sincerely,

(original signed by G. DeShazo)

Gary DeShazo
Director of Regional Transmission – North

Mr. David Ore
January 11, 2006
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cc: Peter Pawlowski (E&L Westcoast, LLC via e-mail <mailto:ppawlowski@cpv.com>)
Andrew Welch (E&L Westcoast, LLC via e-mail <mailto:awelch@cpv.com>)

Dave Larsen (Navigant Consulting via e-mail, <mailto:dlarsen@navigantconsulting.com>)
Monte Meredith (Navigant Consulting via e-mail, <mailto:MMeredith@NavigantConsulting.com>)

Miriam Mirzadeh (WAPA via e-mail, <mailto:mirzadeh@wapa.gov>)
Sabet Morteza (WAPA via e-mail, <mailto:sabet@wapa.gov>)

James Leigh-Kendall (SMUD via e-mail, <mailto:JLeighK@CORPORATE.smud.org>)
Donald DeBerry (SMUD via e-mail, <mailto:DDeberr@smud.org>)
Craig Cameron (SMUD via e-mail, <mailto:CCamero@CORPORATE.smud.org>)

Karen Grosse (PG&E via e-mail, <mailto:KRG6@pge.com>)
Chen Kaicheng (PG&E via e-mail, <mailto:KxCj@pge.com>)
Ore David (PG&E via e-mail, <mailto:DEO1@pge.com>)
Albert Wong (PG&E via e-mail, <mailto:AYW1@pge.com>)
Mark Esguerra (PG&E via e-mail, <mailto:PME8@pge.com>)
Daniels Douglas (PG&E via e-mail, <mailto:DGD4@pge.com>)

Armando Perez (ISO)
Dariush Shirmohammadi (ISO)
Catalin Micsa (ISO via e-mail)
Judy Nickel (ISO via e-mail)
Gary Brown (ISO via e-mail)
Tom French (ISO via e-mail)
Donna Jordan (ISO via e-mail)
Regional Transmission - North (ISO via e-mail)

Attachment 1. CAISO Recommendations

ISO controlled facilities

Palermo-Rio Oso corridor:

Regardless of reliability category (A, B or C) the Project has a very low effectiveness factor, and the increase in loading is very small (less than 3%) as such it is not envisioned that the CAISO will be using CPV Colusa to mitigate real-time problems on this corridor. Further more all problems encountered will be fixed by PG&E expansion projects already approved by the CAISO whose in service dates are before the date that this power plant will become operational:

- T314: Colgate 230/60 kV Transformer Capacity Increase
- T815: Second Pease-Marysville 60 kV Line
- T686B: Palermo 230/115 kV Transformer
- T686: Palermo-Rio Oso 115 kV Reconductoring

South of CPV Colusa corridor:

Regardless of reliability category (A, B or C) the Project has a high effectiveness factor (>5%), and the increase in loading is significant and as such it is envisioned that the CAISO will be using CPV Colusa to mitigate real-time problems on this corridor, if needed.

The Project is asked to participate in a new operating procedure by curtailing its output or to participate in a new Special Protection Scheme (SPS) in order to protect for a double circuit tower line outage and maintain the new CPV Colusa-Cortina 230 kV line within its emergency rating.

Given that not all possible generation dispatch scenarios can be studied, the Project may be required to take part in system readjustments and be responsible for the costs of future operating procedures and/or SPS that are needed in order to maintain all transmission equipment within their applicable ratings before, during and after any given contingency in this corridor, including but not limited to the equipment mentioned in this report: CPV Colusa-Cortina and Lambie-Contra Costa 230 kV lines.

It cannot be guaranteed that the CPV Colusa Project can operate at maximum rated output 24 hours a day, year round, without system impacts, nor can it be guaranteed that the CPV Colusa Project would not have system impacts during the times and seasons not studied in the SIS.

Breaker Replacement:

Based on PG&E's current policy of allocating breaker replacement responsibility to projects, CAISO concurs with PG&E's recommendation for the CPV Colusa Project to be responsible for the following 230 kV breaker replacements: Cottonwood CBs 412, 522, 542 and CB 412 at Vaca-Dixon Substation.

Non-ISO controlled facilities

CAISO was part of the October 19 meeting organized by the developer's representative (Navigant Consulting, Inc.) in order to discuss mitigation measures with the owners and operators of the affected systems outside of the CAISO controlled facilities. The following preliminary conclusions have been reached:

Potential overload of the Olinda 500/230 kV transformer, owned by TANC:

This is a new problem for Category B conditions and an existing problem for Category C conditions. The CPV Colusa Project will increase the magnitude of potential overloads by about 13%. The developer prefers the installation of a new remote SPS in order to mitigate this problem vs. the installation of a new 500/230 kV bank. CAISO agrees with this solution provided that any new SPS complies with the existing CAISO guideline, part of the CAISO Planning Standards: <http://www1.caiso.com/docs/09003a6080/14/37/09003a608014374a.pdf>

All potential overloads on SMUD's owned system:

These are a combination of existing problems for Category B and new problems as well as existing problems for Category C conditions. The CPV Colusa Project will increase the magnitude of potential overloads by about 2-5%. We expect that the new Folsom Loop Project will eliminate these problems.

Potential overload of the O'Bannion-Elverta W 230 kV line owned by WAPA:

This is a new problem for normal conditions and an existing problem for Category B and C conditions, addressed by an existing SPS on Sutter Power Plant. The CPV Colusa Project will increase the magnitude of potential overloads by about 3-6%. We expect that the new O'Bannion-Elverta/Natomas 230 kV Line Project will eliminate these problems.

All potential overloads on the Flanagan-Shasta-Keswick-Olinda area owned by WAPA:

These are a combination of new problems as well as existing problems for Category B and C conditions. The CPV Colusa Project will increase the magnitude of potential overloads by different amounts ranging from 1 to 22%. Additional studies are required in order to propose a best overall solution to these problems.

It is envisioned that, during the Facility Study (FS), all these problems will be identified to be addressed and that an agreement will have to be reached among all affected parties regarding which project to build and how the costs will be allocated.