

CALIFORNIA ENERGY COMMISSION1516 NINTH STREET
SACRAMENTO, CA 95814-5512

DATE: April 7, 2006

TO: Interested Parties

FROM: Connie Bruins, Compliance Project Manager

SUBJECT: Palomar Energy Center (01-AFC-24C)
Final Staff Analysis of Proposed Modification to Use Raw Water
as a Backup Supply to Recycled Water

On January 11, 2006, the California Energy Commission received a petition from Palomar Energy, LLC, to amend the Energy Commission Decision for the Palomar Energy Center (PEC).

The PEC is a 546-megawatt combined cycle power plant located in the City of Escondido in San Diego County. The project was certified by the Energy Commission on August 6, 2003 and began commercial operation on April 1, 2006.

Palomar is seeking approval to allow the project to utilize the City of Escondido's raw water supply when recycled water is unavailable due to maintenance or events beyond the City's control.

On March 29, 2006, a Preliminary Staff Analysis of the amendment petition was published in advance of a public workshop. A Siting Committee Workshop on the matter of allowing the use of raw water as back-up to recycled water at the PEC was held on April 5, 2006. Written comments on the Preliminary Staff Analysis were received prior to the workshop from San Diego Gas & Electric, the San Diego County Water Authority, local resident Mark Rodriguez and Bill Powers, Chair of the Border Power Plant Working Group. Information obtained at the workshop is incorporated into this final analysis.

Staff's final analysis recommends amending condition of certification SOIL&WATER 5 in the Commission Decision to ensure the project's potential contribution to significant cumulative impacts is mitigated and to minimize use of raw water for power plant cooling in accordance with state water policy. It is staff's opinion that, with the implementation of the revised condition, the project will remain in compliance with applicable laws, ordinances, regulations, and standards and that the proposed modifications will not result in a significant adverse direct or cumulative impact to the environment (Title 20, California Code of Regulations, Section 1769).

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A public hearing for the purpose of approving or denying the amendment proposal will be held at the Energy Commission business meeting on April 12, 2006.

The amendment petition, the workshop notice and the preliminary staff analysis have been posted on the Energy Commission's webpage at www.energy.ca.gov/sitingcases. Staff's final analysis is enclosed for your information and review. Staff's final analysis and the order (if the amendment is approved) will also be posted on the webpage. If you have comments on this final analysis, please submit them to me at the address below prior to the business meeting on April 12, 2006.

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Comments may be submitted by fax to (916) 654-3882, or by e-mail to cb Bruins@energy.state.ca.us. If you have any questions, please contact me at (916) 654-4545.

Enclosure

Mail List #7152

**AMENDMENT PETITION TO USE RAW WATER
AS BACKUP TO RECYCLED WATER**

**STAFF ANALYSIS OF SOIL AND WATER RESOURCES
PALOMAR ENERGY CENTER (01-AFC-24C)**

BRIAN ELLIS

APRIL 7, 2006

SUMMARY OF ANALYSIS

The Palomar Energy Center (PEC) is a natural gas-fired, combined cycle power plant with a nominal electrical power output of 550 MW. The PEC was licensed by the California Energy Commission in August 2003 under the name "Palomar Energy Project." The name was changed at the Energy Commission's March 15, 2006 Business Meeting.

On January 11, 2006, Palomar Energy Center submitted an amendment petition for its project as allowed for by the Energy Commission's regulations. The project owner has requested a change to the license conditions to allow the use of raw water that the City of Escondido (City) plans to add to its recycled water distribution system as an emergency backup supply for all of its recycled water customers. There would not be a physical change to the power plant. Staff determined that the proposed use of raw water may contribute to significant cumulative impacts to water resources in the state, and proposes mitigation measures to offset any contribution by the project.

Staff reviewed the amendment materials, the original Commission Decision for the Palomar Energy Center (01-AFC-17) dated December 22, 2003 (CEC 2003b), and the Staff Assessment for that AFC dated May 23, 2003 (CEC 2003a). Staff spoke with Department of Health Services (Stone 2006) and with Delta Diablo Sanitation District (DDSD 2006.) Staff has further reviewed any changes in laws, ordinances, regulations and standards (LORS), the environment, and the project since the Commission decision in early 2003.

On March 29, 2005, a Preliminary Staff Analysis of the amendment petition was published in advance of a public workshop. A Siting Committee Workshop on the matter of allowing the use of raw water as back-up to recycled water at the PEC was held on April 5, 2006. Written comments on the Preliminary Staff Analysis were received prior to the workshop from San Diego Gas & Electric (SDG&E), the San Diego County Water Authority (SDCWA), and interveners Mark Rodriguez and Bill Powers, Chair of the Border Power Plant Working Group. The workshop participants included Staff, the City of Escondido, SDG&E, Palomar Energy LLC, Bill Powers and Cory Briggs with the Border Power Plant Working Group and Quinn Eastman with the North County Times.

Information obtained at the workshop is incorporated into this final analysis. Staff recommends amending condition of certification SOIL&WATER 5 in the Commission

Decision to ensure the project's potential contribution to any potential cumulative impacts is mitigated and to minimize use of fresh (raw) water for power plant cooling in accordance with state water policy.

BACKGROUND ON THE AMENDMENT REQUEST

The PEC was licensed to use only recycled water for power plant cooling. At the time of licensing the source of the project's recycled water supply, the City of Escondido Hale Avenue Resource Recovery Facility (HARRF), was considered to be highly reliable. The HARRF added tertiary treatment processes in 2002 and began producing Title 22 recycled water in 2004 for recycled water customers. From 1997 to 2004, the primary and secondary treatment processes at HARRF experienced only three days of upset conditions which would have precluded recycled water production. During the original licensing proceedings, the project applicant, Palomar Energy, LLC, did not consider a backup supply to be necessary (CEC 2002a).

Extended multiple-day outages of recycled water production in 2004 and 2005 have changed the water supply scenario for the PEC. SDG&E's written comments of April 4, 2005 describe the causes of these outages and the efforts undertaken at HARRF in response. In short, the City of Escondido (City) responded by hiring consultants, modifying the secondary treatment system, and optimizing underperforming components of the tertiary (recycled-water-producing) treatment process. During the Siting Committee Workshop on April 5 2006, it became evident that the City has compelling interests in maintaining HARRF as a reliable source of recycled water. These interests include bond repayment obligations and Regional Water Quality Control Board regulatory requirements (see LORS section) on the HARRF. Therefore, staff believes City efforts to improve HARRF and avoid the use of the raw water backup supply will continue in the future.

During the Siting Committee Workshop on April 5, 2006, SDG&E characterized the recycled water outages at HARRF in 2004 and 2005 as "anomalies." Also during the workshop, City staff predicted that future outages will be rare and of shorter duration, as the HARRF's tertiary treatment has been improved and its secondary treatment is better prepared to deal with contamination events. Written comments from SDCWA dated April 3, 2006, state that, "typically, recycled water plants have a better than 95% reliability level, and upsets ... are a rare occurrence." The comments further state that "many of the Water Authority's member agencies provide available back-up supplies to their recycled water customers."

The City is now developing an emergency backup raw water supply for its recycled water system, with the aim of ensuring the reliability of recycled water deliveries to current and future customers, including the PEC. The City's project is proceeding under a Notice of Exemption approved by the city council. In the amendment petition, the project owner of the PEC is requesting a change to the PEC's license which would allow this backup supply of raw water to be used for power plant cooling when it is activated by the City.

Prior to the amendment petition, the water supply interruptions at HARRF in 2004, 2005, and early 2006 (during construction and commissioning) resulted in the PEC seeking approval for a temporary backup water source to prevent delays in its schedule. After the first outage, the PEC began using, on a temporary basis, fresh water from a fire hydrant at the project site. The Energy Commission staff limitations were formalized in a letter to the project owner dated December 30, 2005. In 2006, the project owner was notified of a scheduled two-week outage in the potable backup supply it was using and requested the ability to use raw water during that time. The raw water would come from a temporary above-ground pipe built by the City to back up their recycled water system, in the same configuration as the permanent connection discussed here. Energy Commission staff issued a letter on February 6, 2006, indicating it would not oppose this temporary use under the same limits previously imposed for fresh water. These decisions were taken to prevent delays in the construction of an important new power supply for the San Diego region and were intended to be temporary pending a formal amendment.

REGIONAL AND VICINITY DESCRIPTION

The PEC site is located in San Diego County with mild but dry conditions. The power plant was strategically located to be near a recycled water treatment plant and within an industrial park.

The HARRF is a publicly owned treatment works owned by the City of Escondido which treats residential, commercial, and industrial wastewater. Built in 1959, the HARRF underwent upgrades to all its major processes during a seven-year period from 1998-2005. Recycled water is generated at the HARRF and delivered to the Rincon del Diablo Municipal Water District (Rincon), which has jurisdiction over the area where PEC is located. As such, Rincon is the provider to the PEC for both recycled water and potable water. It is noteworthy that this area has only one treatment plant supplying recycled water, whereas other jurisdictions have more than one.

ENVIRONMENTAL SETTING

PEC WATER SUPPLY

The Palomar Energy Center was licensed to use recycled water for its cooling needs. During the siting proceeding, the reliability of the HARRF was undisputed, and the project applicant did not propose any backup supply in the event of a disruption of service. In adding a backup supply, the proposed project modification changes the source of the water from one in which there is treatment of waste, and therefore meets the definition of recycled water under Water Code 13050, to one where no treatment has occurred and is therefore not recycled water. During a conversation with Department of Health Services, staff confirmed that water which contains a mixture of recycled water and raw water can only be called a blend for regulatory and legal purposes, and is not recycled water although it will be regulated as such under Title 22 (Stone 2006).

The raw water to be provided as backup to the PEC and other users of the City's recycled water system will originate from the City's imported water supply. The San

Diego County Water Authority (SDCWA) supplies 75 percent of the City's demand with water originating from Northern California and the Colorado River.

CITY PIPELINE PROJECT

A new 0.9-mile, 12-inch (or 16-inch depending on final design) permanent pipeline would be installed by the City under Hubbard Boulevard, a paved road approximately 2.8 miles northeast of the power plant. Other infrastructure includes a flow meter and a chlorination system within a Fiberglass Reinforced Polyester enclosure (City of Escondido 2005).

The City's new 12-inch pipeline would link the City's 30 inch SDCWA imported water pipe to the City's Leslie Lane Recycled Water Reservoir, a storage facility for the recycled water system. When the connection is opened, an air gap would exist between the raw water being added and the recycled water in the reservoir, preventing backflow and contamination of the city's potable water supply.

ASSESSMENT OF IMPACTS

The potential impacts to water resources from the construction and operation of the raw water connection and the PEC's use of the backup raw water are described below. Staff's review of local water supplies is independent of the Notice of Exemption under which the City is proceeding with its project to provide backup water to its recycled water system. Where potential impacts are identified, mitigation measures are proposed to reduce them to less than significant levels.

Staff's analysis focused on:

- The potential for soil loss or surface water contamination as a result of the City's action to construct a pipeline under Hubbard Boulevard,
- The potential for degrading water supplies in the local area,
- The potential for the use of the new water supply to significantly impact other water users,
- The potential for the PEC's use of imported raw water to contribute to cumulative environmental impacts, and
- The compatibility of the new water supply with state policy, as reiterated by the Energy Commission's 2003 guidance on the use of fresh water for power plant cooling.

SOIL

The construction of the permanent pipeline would be in surface streets, and staff agrees with the project owner's conclusion that this action is unlikely to create an adverse impact to soil.

SURFACE HYDROLOGY

Staff's review of the project owner's amendment petition resulted in no concerns related to surface water hydrology.

WATER QUALITY

Because the compliance record for PEC shows that the use of recycled water was reviewed and approved by all the appropriate agencies, the facility is effectively designed to avoid cross-contamination of its cooling water with potable supplies or other water bodies. The discharge of brine, saline water resulting from concentration of recycled water in the cooling tower, was similarly approved to go back to HARRF and from there, the ocean. The use of raw water, which is of significantly better water quality than recycled water, for cooling at the PEC will therefore not cause impacts to public health or degradation of other water sources.

REGIONAL WATER SUPPLY

The San Diego region, historically short on water supplies, is currently adding new storage and supply projects at a rapid pace. The demands of the PEC, representing less than 1% of SDCWA daily imported water use, would not cause a significant impact to regional water supply. The City's water supplies, from which the PEC would draw its backup raw water, are more limited. The PEC requires 3.7 million gallons/day (mgd) of makeup cooling water. Staff calculates that this number represents approximately 12.5 percent of the City's average daily water consumption.

The City's existing water system has sufficient capacity to simultaneously meet the demands of current users while delivering backup water to the PEC and other recycled water customers. Discussions with City of Escondido staff at the Siting Committee Workshop on April 5, 2006, revealed that the City has more capacity to import water than indicated in the amendment petition, sufficient to prevent any shortage in City supplies due to hypothetical multiple-day diversions of imported raw water to the PEC and other recycled water customers during a drought. Therefore, the limited operation of the PEC on raw water would not impact Escondido area water supplies.

CUMULATIVE IMPACTS

The imported raw water received by the City of Escondido which would be used as back up to recycled water originates from the Colorado River and Northern California. Well-known significant environmental impacts to fish and water quality in the San Francisco Bay-Delta and Colorado River ecosystems are the result of exports of water to meet demands in the San Diego region and other areas.

In order to prevent the use of raw water at the PEC from potentially contributing to these cumulative impacts, staff proposes to offset all use with a mitigation fee, per acre-foot used, paid to San Diego area water conservation programs. The conservation of water from such programs would offset the PEC's water use in accordance with the objectives of state water policy (discussed below) to conserve the scarce water resources of the state for best uses, and minimize, if not avoid, industrial use of fresh water. Staff recommends the San Diego County Water Authority receive the mitigation funds, because it operates by far the largest water conservation program in the San Diego region. Staff recommends the fee initially be set at \$522 per acre-foot, a price for conservation identified in the California Department of Water Resources' California Water Plan Update 2005, Chapter 22, as the historic cost to conserve an acre-foot

without prior investment (DWR 2005). The mitigation fee would be adjusted annually consistent with the annual adjustment of the compliance fee.

Mitigating the environmental impacts of raw water use by contributing to conservation has limits, however. As the amount of water to be conserved increases, the price of conserving an acre-foot increases sharply. The potential impacts resulting from a long-term duration of using raw water by the PEC can only be successfully mitigated by placing limits on the number of consecutive days and total days in a year when raw water may be used. Staff proposes revising Condition of Certification SOIL&WATER 5 to contain such provisions.

At the Siting Committee Workshop on April 5, 2006, alternative approaches to avoiding the use of raw water at the PEC were presented. These approaches all involved temporary shutdowns of the now-operational power plant, either during periods when recycled water is unavailable or for reconfiguration to wet/dry hybrid cooling. These alternatives, which staff considers infeasible due to the need for the PEC's power in the San Diego electric grid, particularly during periods of peak demand, and the economic impacts on ratepayers, are additionally not environmentally preferred. Allowing the PEC to operate occasionally on raw water while paying mitigation fees is preferable, as the power now supplied by PEC to the San Diego region reduces the reliance on older coastal power plants using once-through cooling. Once-through cooling contributes to other well-known cumulative environmental impacts to coastal marine life.

LAWS, ORDINANCES, REGULATION, AND STANDARDS

The LORS referenced in the January 2003 Staff Assessment (CEC 2003a) and the August 2003 Commission Decision (CEC 2003b) are applicable to this amendment petition and can be found in the pertinent portion of Appendix A of the Commission Decision (CEC 2003b). The project owner's amendment petition was also reviewed for consistency with the following applicable laws, standards, and policies.

STATE

Water Code 13050, Subdivision (n)

"Recycled water means water which, as a result of treatment of waste, is suitable for a direct beneficial use, or a controlled use that would not otherwise occur and is therefore considered a valuable resource."

San Diego RWQCB Orders 98-10 and 99-72

These two Orders restrict the quality and quantity of water that the HARRF can discharge to the Pacific Ocean. Under the Recycled Water Service Agreement between the project owner and Rincon (see Local below), the PEC is required to comply with these limits.

Integrated Energy Policy Report (Public Resources Code, Div. 15, Section 25300 et seq)

State water policy as stated in the 2003 Integrated Energy Policy Report, based on State Water Resources Control Board Policy 75-58, states that “the Energy Commission will approve the use of fresh water for cooling purposes by power plants which it licenses only where alternative water supply sources and alternative cooling technologies are shown to be ‘environmentally undesirable’ or ‘economically unsound.’”

CONFORMANCE WITH LORS

The proposed project change would not violate any of the applicable LORS. Conformance with state water policy as stated in the Energy Commission’s 2003 IEPR on the use of fresh water at power plants is of primary concern to staff.

State water policy as stated in the 2003 IEPR forbids the use of fresh, or raw, water for power plant cooling unless the alternatives are “environmentally undesirable” or “economically unfeasible.” It is important to note that the policy is intended to apply to the primary source of cooling water, and is not intended to discourage the use of recycled water for power plant cooling (SWRCB Policy 75-58 encourages such use.) Nevertheless, the proposed amendment would allow the use of fresh water for cooling when recycled water service from the City is interrupted.

Several Commission Decisions from 1999 to 2003 approved the use of recycled water at power plants while making specific provisions for raw or potable water backup supply (see Table 1 at the end of this document). Some power plants have never used their backup supply after several years of operation. In conversation with officials at the Delta Diablo Sanitation District in Contra Costa County (DDSD 2006), staff learned that the use of newer technologies at treatment plants can allow production of recycled water 24 hours, 7 days a week with practically 100 percent reliability -- the ideal situation for power plant customers. At the Siting Committee Workshop on April 5, 2006, City of Escondido staff explained that they are actively upgrading the capabilities of HARRF and are making significant progress towards achieving this goal.

CONCLUSIONS AND RECOMMENDATIONS

California state policies discourage the use of fresh or raw water for power plant cooling. The objective of both SWRCB Policy 75-58 and the Energy Commission’s 2003 IEPR is to conserve water resources which are socially and environmentally important to the state. Potential raw water use at the PEC may contribute to significant cumulative environmental impacts to water resources. These potential impacts can be mitigated in a manner consistent with the goals of state water policy by offsetting this use through contributions to water conservation programs.

Staff recommends amending one condition of certification published in the Commission Decision (SOIL&WATER 5) to allow for limited raw water use offset by mitigation fees to fund county water conservation programs.

PROPOSED AMENDMENTS TO THE CONDITIONS OF CERTIFICATION

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SOIL&WATER 5: The ~~PEP~~ PEC shall use recycled water for cooling tower makeup, process water, landscape irrigation and all other non-potable uses. If recycled water is unavailable due to maintenance or events beyond the control of the City of Escondido (City), the PEC may use raw water supplied from the emergency backup water supply system operated by the City. The project owner shall notify the CPM immediately whenever raw water is used. The project owner shall provide reports detailing the duration of outages and quantities of water used to the CPM. Raw water shall not be used for more than seven consecutive days or 20 days in a calendar year without CPM approval.

Following each instance of raw water use, a fee of \$522 per acre-foot, of water used during the outage (from the time of notification by the City that raw water has entered the system to the time of notification that its delivery has ceased) shall be paid to a water conservation program. The mitigation fee shall be adjusted annually consistent with the annual adjustment of the compliance fee.

The ~~PEP~~ PEC shall comply with all Title 22 California Code of Regulations requirements while using either source of water.

Verification: At least 60 days prior to the start of construction of the water supply system, the project owner shall submit to the CPM its water supply system design demonstrating compliance with this condition. Those required features shall be included in the final civil design drawings submitted to the CBO as required in Condition of Certification CIVIL 1. Approval of the final design of the water supply and treatment system shall be obtained prior to the start of construction of the systems.

The CPM shall be notified in writing within 24 hours of any time raw water is delivered to the recycled water system, and shall be notified again when raw water delivery has ceased. Upon notification by the City of the delivery of backup water, the project owner shall record the amount used in acre-feet (to at least two decimal places) and the duration of use in hours. Following notification that raw water delivery has ceased, an event report shall be provided to the CPM within 30 days identifying the cause of the interruption of recycled water, any efforts underway to remedy the cause, the duration of the outage, the amount of water used and evidence that funds were deposited with the San Diego County Water Authority conservation program, or other, CPM-approved conservation program. If raw water is approved for use beyond 7 consecutive days or 20 days in a calendar year, the project owner shall provide a weekly report to the CPM for as long as raw water use continues, including the amount used and progress by the City of Escondido towards restoring recycled water delivery.

REFERENCES

- CEC (California Energy Commission). 2003a. Staff Assessment for Palomar Energy Project (01-AFC-24). January 24, 2003.
- CEC (California Energy Commission). 2003b. Palomar Energy Project (01-AFC-24) Commission Decision. August 6, 2003.
- CEC (California Energy Commission). 2002a. Staff Data Request Number 48 for Palomar Project (01-AFC-24). April 8, 2002.
- City of Escondido. 2005. Notice of Exemption; Raw Water Line Extension to Leslie Lane Reservoir/ ER 2005-03, signed on October 18, 2005.
- DDSD (Delta Diablo Sanitation District). 2006. Personal communication of Gary Darling, Delta Diablo Sanitation District, with Brian Ellis, California Energy Commission. February 13, 2006.
- Palomar Energy, LLC. 2006. Petition for Soil and Water Condition Modification. January 13, 2006.
- Stone, J. 2006. Personal communication of Jeff Stone, Department of Health Services, with Brian Ellis, California Energy Commission. February 14, 2006.
- California Department of Water Resources (DWR). 2005. California Water Plan Update 2005, Volume 2. December, 2005.

Table 1 Backup Supplies for Reclaimed Water based on Information Found in Commission Decision or the Final Staff Assessment

Power Plant/ Date of Comm. Decision	Status as of January 2006	Source of Recycled Water	Conditions of Certification Relating to Use	Amt. Needed Annually (Acre-feet)	Backup Supply	Restrictions on Use
Originally Approved for Use of Recycled Water by Energy Commission						
Los Medanos Power Plant (Pittsburg) 8/17/1999	Operational	Delta Diablo Sanitation District	S&W-5	4,000 (est.)	Potable water from City of Pittsburg	S&W-5: If use backup for more than 3 consecutive days, then notify the CPM. Continued use for more than 2 weeks requires approval.
Delta Energy Center 2/9/2000	Operational	Delta Diablo Sanitation District	S&W-4	5,000	Contra Costa Canal water from surplus created when Gaylord Industries is shut down	S&W-4: If use backup for more than 14 consecutive days, then notify CPM explaining the cause and anticipated return date to reclaimed
Mountainview 3/21/2001	Under construction – near completion	City of Redlands WWTP	WR-1, WR-8, WR-9	7,500	Groundwater wells on-site which draw from contaminated mid-aquifer and not potable	None
Otay Mesa 4/18/2001	Construction		S&W-7	400	None identified.	None

Power Plant/ Date of Comm. Decision	Status as of January 2006	Source of Recycled Water	Conditions of Certification Relating to Use	Amt. Needed Annually (Acre-feet)	Backup Supply	Restrictions on Use
Three Mountain 5/16/2001	On Hold	BWD Publicly Owned Treatment Works	S&W-7 (Recycled water should be used when it is an option)	890	None identified.	None
Metcalf Energy Center 9/24/2001	Operational	SBWR/ City of San Jose	S&W-1	3,900	Potable water (supply is from the owner's groundwater wells)	S&W-1: Not to exceed 45 days in any one year. Must provide written notice to CPM.
Valero Cogen 10/31/2001	On Hold	City of Benicia WTP	WR-2	314	None identified.	None
Los Esteros Critical Energy Facility 7/2/2002	Operational	San Jose/Santa Clara Water Pollution Control Plant	S&W-6, S&W-7, S&W-9	560	None identified	None
Russell City Energy Center 9/11/2002	On Hold	City of Hayward Water Pollution Control Facility	S&W-6	3,700	None identified	None

Power Plant/ Date of Comm. Decision	Status as of January 2006	Source of Recycled Water	Conditions of Certification Relating to Use	Amt. Needed Annually (Acre-feet)	Backup Supply	Restrictions on Use
Magnolia Power Plant 3/5/2003	Operational	City of Burbank RWP	S&W-5, S&W- 6, S&W-7	5,100	City of Burbank potable water containing at least 25 percent properly treated contaminated groundwater or properly treated groundwater from on- site wells	S&W-5: Must calculate failure rate on a moving average and must report failure rate in annual report, and confer with CPM when have failures. Owner may make a new amendment with project design change if too many failures occur. S&W-6: Report potable when greater than 200 AFY as backup supply
Malburg Generating Station (Vernon) 5/27/2003	Operational	CBMWD	S&W-4, S&W- 5, S&W-7	1,500	Potable water	S&W-5: Use cannot continue for more than 9 days (216 hours) per calendar year or owner is subject to noncompliance procedures and enforcement action

Power Plant/ Date of Comm. Decision	Status as of January 2006	Source of Recycled Water	Conditions of Certification Relating to Use	Amt. Needed Annually (Acre-feet)	Backup Supply	Restrictions on Use
Palomar Energy Project 8/6/2003	Under construction – near completion	Hale Avenue Resource Recovery Facility	S&W-5	3,600	None identified. Request to use the City system when have a backup supply of raw water (given to Energy Commission in Jan. 2006).	None
East Altamont Energy Center 8/20/2003	On Hold	Mountainhouse Community Service District	S&W-5, S&W- 6, S&W-7, S&W-8	4,600	Raw water from BBID from Canal 45 until recycled water is available.	S&W-5: Up to 10 percent of the power plants actual use in any year. Must notify CPM if going to exceed 10 percent limit or if canal water not available.
SMUD Consumnes 9/10/2003	Operational	Not applicable	Only if they initiate their second phase	Not applicable	Not applicable	Not applicable

Power Plant/ Date of Comm. Decision	Status as of January 2006	Source of Recycled Water	Conditions of Certification Relating to Use	Amt. Needed Annually (Acre-feet)	Backup Supply	Restrictions on Use
Inland Empire Energy Center 12/17/2003	Under Construction	Eastern Municipal Water District	S&W-4, S&W- 5, S&W-6	4,200	Eastern Municipal Water District is expected to augment its reclaimed water system with raw water during the early years	<p>S&W-5: Owner must cooperate with EMWD and report actual amounts of raw water to the CPM. Maximum acre-feet limits set on a yearly basis are:</p> <p>2005: 1,000 2006: 800 2007: 600 2008: 400 2009: 200 2010: 100 after 2010: 100</p> <p>May use more raw water "due to an act of God, a natural disaster, an unforeseen emergency, or other unforeseen circumstances outside the control of the project owner", but must confer with the CPM to restore recycle</p>

Power Plant/ Date of Comm. Decision	Status as of January 2006	Source of Recycled Water	Conditions of Certification Relating to Use	Amt. Needed Annually (Acre-feet)	Backup Supply	Restrictions on Use
San Joaquin Valley Energy Center 1/21/2004	On Hold	Fresno-Clovis WTF	S&W-4, S&W- 5, S&W-6, S&W-7, S&W- 8	5,340	None identified.	None
Walnut Energy Center 2/18/2004	Operational	City of Turlock WWTP	S&W-5, S&W- 6, S&W-7, S&W-8	1,800	Ground water bridge supply until reclaimed water is available.	S&W-6: Not to exceed 54 AF (amount used to irrigate agricultural land previously)
Tesla 6/16/2004	On Hold	City of Tracy WWTP	S&W-9, S&W- 10, S&W-11, S&W-12, S&W-13	5,100	City of Tracy (no water type identified)	S&W-9: Secure a user's agreement which identifies a backup water supply and ensure following NPDES Waste Discharge requirements
Roseville Energy Park 4/13/2005	Under Construction	PGWWTP	S&W-5S&W-6, S&W-7	1,247	None identified.	None
Seeking Approval for Use						
SFERP	PSA out. FSA out in Feb. 2006	Sanitary sewer near power plant, and treat to tertiary standards on- site	Expected	582	Potable water from city supply (Hetch Hetchy)	

Power Plant/ Date of Comm. Decision	Status as of January 2006	Source of Recycled Water	Conditions of Certification Relating to Use	Amt. Needed Annually (Acre-feet)	Backup Supply	Restrictions on Use
Walnut Creek Energy	Data Adequate on Feb. 1, 2006	Roland Water District / San Jose Creek WWRP	Expected	827	None identified	
Sun Valley Energy	Data Adequate on Feb. 1, 2006	Eastern Municipal Water District	Expected	851	None identified	
Vernon Power Plant	Seeking Data Adequacy	Central Basin Municipal Water District	Expected	4,048	Potable water from City supply	
Seeking Approval/Approved for Retrofit and use of Reclaimed water by Energy Comm.						
Gilroy Foods CoGen 7/13/2005	Operational	South County Regional Wastewater Authority	WQ 6-9, WQ 6-10	860	Potable water (supply is from the owner's groundwater wells)	WQ 6-9 Notify CPM if recycled water is unavailable more than 30 consecutive days
High Desert	Expect petition in 2006				No data available	