01-AFC-24
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Palomar Energy

A SEMPRA ENERGY DEVELOPMENT

October 2, 2002

Mr. John Geeseman
Mr. William Keese
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: **Palomar Energy Project (01-AFC-24)**
Response to Petition From Bill Powers for Committee Workshop on the Subject of Alternative Cooling Options

Dear Commissioners Geeseman and Keese:

On behalf of Palomar Energy LLC, enclosed please find Palomar's Response to the Petition From Bill Powers for Committee Workshop on the Subject of Alternative Cooling Options.

Thank you for your consideration of our response.

Sincerely yours,

Taylor Q. Miller, Esq.
Counsel to Palomar Energy LLC

Enclosures

cc: Susan Gefter, California Energy Commission
Docket Unit (11 copies)
Service List

101 Ash Street, San Diego, California 92101 • (619) 696-2730 • FAX (619) 696-2911

STATE OF CALIFORNIA STATE OF CALIFORNIA

CALIFORNIA ENERGY RESOURCES AND DEVELOPMENT COMMISSION

In the Matter of:	)	**Docket No. 01-AFC-24**
	)	
	)	
Palomar Energy, LLC	)	
Application for Certification of	)	
Palomar Energy Power Plant	)	
	)	

RESPONSE TO PETITION FROM BILL POWERS FOR COMMITTEE WORKSHOP ON THE SUBJECT OF ALTERNATIVE COOLING OPTIONS

Dated: October 2, 2002

Taylor O. Miller, Esq.
Counsel to Palomar Energy, LLC.
980 9th Street, 16th Floor
Sacramento, CA 95814

STATE OF CALIFORNIA STATE OF CALIFORNIA

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RESPONSE TO PETITION FROM BILL POWERS FOR COMMITTEE WORKSHOP ON THE SUBJECT OF ALTERNATIVE COOLING OPTIONS

Palomar Energy, LLC. (Palomar Energy) hereby files this response to the petition filed September 25, 2002. The petition to the Committee requests a Committee workshop concerning alternative cooling options. Palomar Energy does not believe a Committee workshop is necessary. The normal Commission siting process can serve to provide a forum for evaluation of Mr. Powers concerns regarding the use of reclaimed water for power plant cooling at the Palomar Energy Project. Mr. Powers attended the PSA Workshop held on September 19, 2002, but did not provide the comments contained in his petition at that time nor in subsequent comments on the PSA which were to be filed by September 27, 2002. Instead, he included them in his petition to the Committee for a special Committee workshop.

Mr. Powers makes a number of assertions concerning the use of reclaimed water in the Palomar project in his petition. Palomar Energy's summary response to these assertions is as follows:

- Reclaimed water to be used by the Palomar Energy Project will otherwise be discharged to the Pacific Ocean for the foreseeable future if not beneficially used by the power plant.

- Ample supplies of reclaimed water are available as verified by the City of Escondido in the attached letter dated May 28, 2002 (previously filed as a data response on June 3, 2002) and again at the September 19th workshop in remarks by Mr. Jack Hoagland, Manager of the City Utility Department. According to Mr. Hoagland's evaluation, current and projected customers, including Palomar Energy, would use only 6,636-acre feet/year of a capacity of 9,900-acre feet/year at the Hale Avenue Resource Recovery Facility.

- At the PSA Workshop, Mr. Hoagland also addressed Mr. Power's assertion regarding alternative uses of reclaimed water, such as for avocado irrigation and groundwater

recharge. Mr. Hoagland explained that these were not currently viable alternative uses for reclaimed water. He further stated that if these or other uses should become practical in the future, the capacity of the treatment plant to produce reclaimed water can be approximately doubled.

- Use of reclaimed water for power plant cooling is consistent with and encouraged by State law concerning recycled water (Water Code sec. 13550, 13552.8) and by the State Water Resource Control Board inland waters power plant cooling policy (Resolution 75-58).

- There is no evidence of a significant impact being caused by use of reclaimed water, which is subject to well-established requirements of Department of Health Services regulations concerning use of reclaimed water in cooling towers (22 Cal. Code Regs. Sec. 60306).

Mr. Powers makes a number of other assertions concerning the benefits of dry cooling for the Palomar project in his petition. Palomar Energy's summary response to these assertions is as follows:

- The petition asserts that the dry cooling system would "emit no PM_{10}". A very conservative estimate of the emissions from the Palomar wet cooling tower showed that PM_{10} emissions would be minimal (less than three percent of plant PM_{10} emissions). However, emissions of many pollutants (PM_{10}, NOx, CO and CO_2 in particular) would have to increase in order for the plant to make up for the negative impact on the energy output efficiency associated with a dry cooled power plant.

- The petition asserts that the dry cooling system would "eliminate the possibility that existing nearby residents would be exposed to Legionella bacteria". The above mentioned regulations (22 Cal. Code Regs. Sec. 60306) specifically address the requirements for industrial cooling towers to prevent Legionella exposure, e.g., the use of disinfected tertiary recycled water, such as will be available to the Palomar Energy Project. Further, at the PSA workshop Energy Commission staff stated that they had reviewed the potential for Legionella exposure for other siting cases, and had no concern that there would be a potential for impact from a well-maintained power plant cooling tower.

- The petition asserts that the dry cooling system would "eliminate issues related to visible cooling tower plumes". The PSA found that there were no issues related to visible cooling tower plumes from the Palomar wet cooling tower based on the mitigation measures proposed.

We suggest that in lieu of a Committee workshop, Mr. Power's petition for a Committee workshop be treated as a comment on the PSA. Palomar Energy would also not object to Mr. Powers making additional comments, if he so chooses, on the topic of use of reclaimed water for power plant cooling within the next two weeks. Commission staff can then consider these

comments in the ordinary course of preparation of the Final Staff Assessment and Palomar Energy can also file further written comments, if necessary.

Date Submitted: October 2, 2002

Respectfully submitted,

Taylor O. Miller
Counsel to Palomar Energy LLC

PALOMAR ENERGY PROJECT (01-AFC-24)
CEC STAFF DATA REQUEST NUMBER 135

Technical Area: Soil and Water Resources **Response Date: June 3, 2002**

REQUEST:

Please provide the current water demand and supply projections for the City of Escondido's tertiary treated and secondary treated reclaimed water program. Please discuss the impact on PEP operations based on the City of Escondido's reclaimed water supply and demand projections for the life of the project.

RESPONSE:

Following is a letter and tabular data from Mr. John Hoagland, Utilities Manager, City of Escondido Public Works Department to Mr. Robert Jackson, Project Manager, Palomar Energy Project. The letter and data table address the issues raised in this Data Request. They provide the City's supply and demand projections for its reclaimed water program, and indicate the City's confidence in its ability to successfully meet the reclaimed water demands of the Palomar project, as well as those of all other identified customers.

Patrick Thomas
Public Works Director
Utilities Administration
(760) 839-3597, FAX (760) 839-4597

CITY OF
ESCONDIDO
201 NORTH BROADWAY
ESCONDIDO, CA 92025

May 28, 2002

Mr. Robert C. Jackson
Sempra Energy Resources
101 Ash Street
San Diego, CA 92101-3017

Dear Mr. Jackson,

At your request I am providing information related to California Energy Commission (CEC) staff Data Request 135:

Please provide the current water demand and supply projections for the City of Escondido's tertiary treated water and secondary treated reclaimed water program. Please discuss the impact on PEP operations based on the City of Escondido's reclaimed water supply and demand projections for the life of the project.

As you know, I am Utilities Manager for the City of Escondido with responsibility for management of the Hale Avenue Resource Recovery Facility (HARFF). Attached is a table of Recycled Water Distribution System (RWDS) Meters and Extensions for the City of Escondido' Recycled Water Program. Note that the PEP is User ID 71. A similar table was provided to you in early April for response to a previous Data Request from the CEC (Data Request 47, Table 47-1). Table 47-1 set forth a projection of possible customers for recycled water from the HARFF. The attached Table 135-1 contains an updated listing of recycled water customers for which connections have been constructed. The Tertiary facilities currently under construction will have a capacity of nine million (9,000,000) gallons per day. Completed environmental reviews for upgrading and expansion of the HARFF included facilities for production of a total of eighteen million (18,000,000) gallons per day. The project as planned and designed during the past decade includes space and facilities to accommodate an approximate doubling of recycled water production capacity in the event of increased demands in the future for recycled water. Peak daily flows based on the attached table and previously submitted Table 47-1 were less than the capacity of the current system

Lori Holt Pfeiler, Mayor
June Rady, Mayor Pro Tem
Tom D'Agosta
Ed Gallo
Marie Waldron

under all reasonable scenarios. Table 135-1 shows an annual demand of 6,636 acre-feet/year (AFY) compared to a capacity of 9,900 AFY of recycled water production. Table 47-1, which estimates slightly higher demand for recycled water, shows a peak daily demand of 8 million gallons compared to a supply of 9 million gallons per day.

The Palomar Energy Project would take recycled water virtually year round. Recycled water not utilized by the Palomar Energy Project would likely flow to the ocean through the Escondido Land Outfall for the foreseeable future. Most other customers will use recycled water for landscape irrigation purposes and will not take HARFF recycled water output during wet periods. Since the Palomar Energy Project will return substantially less water to the HARFF than it takes from the HARFF, beneficial use of the water by the Palomar Energy Project will also help ease capacity constraints of the ocean outfall line during wet periods.

The City of Escondido does not now nor do we plan in the future to deliver any secondary treated water for any uses. The City does not currently plan to proceed with additional expansion of the current system in the foreseeable future based on reasonably expected economic conditions. We believe that the current mix of customers will be stable for at least the next 20 years and that we will be able to provide for all of the identified customer demands. However as noted above, in the event that demand for recycled water grows substantially, the City could add additional recycled water production capacity.

Please contact me at 760-839-4528 if I can provide any further assistance.

Sincerely,

John E. Hoagland
Utilities Manager

cc: Patrick Thomas
Jonathan Brindle

RWDS METERS AND EXTENSIONS

User ID	Node Ref	Project	Bid Item	Size, in.	Meter/Ext.	Node Demand, afy	Street	Cross Street	Station	Customer Name
1	20011	TW-1002	23	4	Meter	48	Kit Carson Park	NA	1308+50	Kit Cereco Park No. 1
1	20012	TW-1002	23	4	Meter		Kit Cereco Park	NA	722+40	Kit Carson Park No. 2 (Deleted CDC #6)
1	20013	TW-1002	24	6	Meter	107	Kit Carson Park	NA	729+10	Kit Carson Park No. 3 (Relocated from 740+00 CDC #6)
1	20014	TW-1002	23	4	Meter	48	Bear Valley Parkway	NA	1197+85	Kit Cereco Park No. 4
1	20015	TW-1002	23	4	Meter	48	Kit Cereco Park	NA	698+60	Kit Carson Park No. 5
1	20016	TW-1002	19	1.5	Meter	5	Kit Carson Park	NA	1308+46	Kit Carson Park No. 6
2	20020	TW-1004	22A	4	Meter	43	North Broadway	S of Jesmond Dene Rd	551+15	Jesmond Dene Park
6	20060	TW-1007	30	6	Meter	44	Broadway	Escondido Creek	307+32	Grape Day Park
6		TW-1007	CO 2	2	Meter	4	Woodward	Escondido/Broadway	55+75	City Hall Parking Lot Landscaping
7	20070	TW-1004	22A	4	Meter	40	S. Iris	N of Forest Glen	77+73	Rod McLeod Park
8	20080	TW-1002	19	1.5	Meter	5	Spruce	4th/5th	899+50	Westside Park
15	20151	TW-1004	22A	4	Meter	131	Country Club	Lorraine/Sunbury	706+89	Escondido Country Club No. 1
15	20152	TW-1004	22A	4	Meter	26	Country Club	E of Firestone Dr	725+00	Escondido Country Club No. 2 (Rincon)
15	20153	TW-1004	22A	4	Meter	67	Country Club	W of Nutmeg St	741+80	Escondido Country Club No. 3 (Rincon)
15		TW-1004	38A	6	Ext.	75	Country Club	N on Nutmeg St	748+28	Escondido Country Club (Rincon)
18	20180	TW-1002/P-2098	34	6	Meter	300	San Pasqual	E of Bear Valley Pkwy	8+74	Vineyard Golf Course
22	20221	TW-1002	23	4	Meter	0	Via Rancho Parkway	N of Beethoven	1196+75	Centermark Properties (Relocated from 1209+70 CDC #1)
22	20222	TW-1002	21	2	Meter	9	Via Rancho Parkway	W of Sunset Dr	1314+50	Centermark Properties No. 2
24	20240	TW-1004	40A	6	Ext.	13	Country Club	N on Village Rd	780+95	Escondido Hills/View HOA (Rincon)
24	20242	TW-1004	44A	2	Meter	4.0	Country Club	E of Eastridge Ln	787+50	Escondido Hills/View HOA (Rincon)
24	20243	TW-1004	42A	6	Ext.	13	Country Club	N on Iris Ln	788+40	Escondido Hills/View HOA (Rincon)
24	20244	TW-1004	41A	6	Ext.	13	North Broadway	W on Village Rd	818+15	Escondido Hills/View HOA (Rincon)
24		TW-1004	40A	6	Ext.	13	Country Club	S on Village Rd	781+25	Escondido Hills/View HOA (Rincon)
24		TW-1004	42A	4	Ext.	7	Country Club	S on Evanside Glen	795+05	Escondido Hills/View HOA (Rincon)
24		TW-1004	43A	6	Ext.	13	Country Club	S on Ice Ln	798+70	Escondido Hills/View HOA (Rincon)
24		TW-1004	22A	4	Meter		Country Club	E of Village Rd	781+70	Deleted RFP #4
24		TW-1004	CO 2	2	Meter	6.3	Country Club	CCP/Village Rd	777+20	Escondido Hills HOA (Rincon)
24		TW-1004	CO 2	2	Meter	5.8	Country Club	E of Village Rd	782+20, 50'L	Escondido View HOA (Rincon)
24		TW-1004	CO 2	2	Meter	6.8	Country Club	E of Village Rd	782+30, 20'R	Escondido Hills HOA (Rincon)
24		TW-1004	CO 2	2	Meter	3.1	Country Club	E of Eastridge Ln	788+90	Escondido Hills HOA (Rincon)
25	20251	TW-1004	22A	4	Meter	18	El Norte	E of Morning View Dr	623+50	Reidy Env. Channel
25	20252	TW-1004	22A	4	Meter	18	El Norte	E of Morning View Dr	625+75	Reidy Env. Channel No. 2
26	20260	TW-1004	19A	6	Meter	24	North Broadway	N of Leslie Lane	484+40	Escondido High School
26		TW-1010	CO 1	4	Meter	11	North Broadway	N of Sheridan Ave	468+00	Escondido High School
28	20281	TW-1002	23	3	Meter	15	San Pasqual	E of Bear Valley Pkwy	NA	San Pasqual High School No. 1
28	20282	TW-1002	22	3	Meter	15	San Pasqual	E of Bear Valley Pkwy	NA	San Pasqual High School No. 2
28	20290	TW-1001	17	4	Meter	40	Ninth Avenue	Del Dios Rd	56+19	Del Dios Jr. High School
32	20320	TW-1003	21	2	Meter	10	Maple	N of Fifth	832+80	Central School
34	20340	TW-1002	21	2	Meter	10	Thirteenth Avenue	W of Redwood	884+50	Felicita School
36	20360	TW-1002	21	2	Meter	10	Naranja	Greco Ave	818+32	Juniper School
37	20370	TW-1010	12B	2	Meter	10	North Broadway	N of Lincoln Ave	427+57	Lincoln School, Relocated from 432+82 FM #3
38	20390	TW-1004	21A	3	Meter	13	North Broadway	N of Country Club Ln	522+02	North Broadway School
45	20491	TW-1002	18	1.5	Meter	5	Thirteenth Avenue	S of Redwood	865+75	Grace Lutheran School
45	20452	TW-1002	20	1	Meter	2	Thirteenth Avenue	S of Redwood	869+60	Grace Lutheran School No. 2
46	20460	TW-1004	20A	1	Meter	3	North Broadway	N of Vista Ave	504+28	Calvin Christian High School
49	20490	TW-1004	21A	3	Meter		North Broadway	S of Jesmond Dene Rd	553+85	Retreat Newcomb (Rincon) Deleted CDC #2

RWDS METERS AND EXTENSIONS

68	20680	TW-1002	35	9	Meter	171	Center City Parkway	S of Beethoven	1199+72	Sonata HOA (Rincon)
71	20710	TW-1001	18	18	Ext	4,139	Escondido Creek Channel	Harmony Grove Rd	99+66	900 MW Power Plant (Upsized, Delete Meter, Add BFV CGC 1, 2, RFP 6)
73	20730	TW-1002	22	3	Meter	94	Via Rancho Parkway	E of I-15	1225+48	Caltrans I-15 (Relocated from 1235+80 CGC #2)
76	20760	Caltrans 11.SD.15 R30.0/R30.2		2	Meter	26	Ninth	E of I-15		Caltrans I-15 Landscape
77	20770	P-2107, P-2159, D-1108		2	Meter	3	Washington			Caltrans I-15 Landscape (Not Shown on Plans)
78	20780	P-2042, P-2311		2	Meter	46	El Norte			Caltrans I-15 Landscape
78	20791	TW-1002	21	2	Meter	3.5	Center City Parkway	S of Valley Pkwy	521+75	CCP South No. 1
79	20792	TW-1002	20	1	Meter		Center City Parkway	Grand	524+00	CCP South No. 2, Deleted
79	20793	TW-1003	31	2	Meter	3.5	Center City Parkway	S of 3rd	539+05	CCP South No. 3
79	20794	TW-1002	21	2	Meter	3.5	Center City Parkway	7th/8th	545+42	CCP South No. 4
79	20795	TW-1002	21	2	Meter	3.5	Center City Parkway	10th/11th	560+35	CCP South No. 5
79	20796	TW-1002	21	3	Meter	3.5	Center City Parkway	S of 15th	577+50	CCP South No. 6
79	20797	TW-1002	21	2	Meter	3.5	Center City Parkway	Vermont	603+30	CCP South No. 7
79	20798	TW-1002	21	2	Meter	3.5	Center City Parkway	Escondido Blvd	615+55	CCP South No. 8
79		TW-1002	RFP 10	2	Meter	3.5	Center City Parkway	N of Valley Pkwy	517+50	CCP Median Landscape Irrigation
79		TW-1002	RFP 10	2	Meter	3.5	Center City Parkway	S of 2nd	529+50	CCP Median Landscape Irrigation
79		TW-1002	RFP 10	2	Meter	3.5	Center City Parkway	N of 5th	538+00	CCP Median Landscape Irrigation
79		TW-1002	RFP 10	2	Meter	3.5	Center City Parkway	S of 5th	541+00	CCP Median Landscape Irrigation
78		TW-1002	RFP 10	2	Meter	3.5	Center City Parkway	8th/9th	552+25	CCP Median Landscape Irrigation
79		TW-1002	RFP 17	2	Meter	3.5	Center City Parkway	N of Citricado	626+56	CCP Median Landscape Irrigation
79		TW-1002	RFP 17	2	Meter	3.5	Center City Parkway	Cranston	652+85	CCP Median Landscape Irrigation
80	20800	TW-1007	29	2	Meter	41	Center City Parkway	Escondido Creek	35+00	CCP North
80		TW-1007	CO 2	2	Meter	3.5	Center City Parkway	Escondido Creek	36+10	CCP North Median Landscape Irrigation
81	20810	TW-1002	23	4	Meter	9	Castaneda Dr	S of Lee Palmas	1318+00	L R Green Solved
83	20830						?	?		Douglas Allied Company (Unable to Locate)
86	20860	TW-1004	22A	4	Meter	15	El Norte	W of Center City Pkwy	619+93	Del Norte Plaza
87	20870	TW-1004			Ext	18	S. Iris	Rod McLeod Park	77+79	Morningside Woods
87		TW-1004	38A	4	Ext	6	S. Iris	Forest Glen	75+80	Forest Glen Apts/Morningside Woods (Rincon)
88	20880				Ext	11	Beethoven			Stony Point HOA, Pacific Rim Properties (Rincon)
90	20900	TW-1001	18	8	Meter	30	Escondido Creek Channel	E of I-15	152+72	Arroyo Energy (Irrigation)
90	20900	TW-1001	18	8	Meter	480	Escondido Creek Channel	E of I-15	153+72	Arroyo Energy (Industrial)
99	20999	TW-1004	38A	6	Meter	231	North Broadway	N of Country Club Ln	532+12	Reidy Creek/Brookside Development
99		TW-1004	CO 4	2	Meter	3	North Broadway	N of Jesmond Dene	556+20	Brookside Development
99		TW-1004	CO 4	2	Meter	3	North Broadway	N of Jesmond Dene	556+15	Brookside Development
		TW-1001	CO 2	2	Meter	5	Escondido Creek Channel	Tulip St	163+43	Concrete Recycling Plant
		TW-1004	CO 2	1	Meter	0.7	Country Club	Firestone/Le Brea	726+03	CoE Median Landscape Irrigation (Rincon)
		TW-1004	CO 3	1	Meter	1.1	Country Club	W of Nutmeg St	741+47	CoE Median Landscape Irrigation (Rincon)
		TW-1004	CO 2	1	Meter	0.1	Country Club	E of Nutmeg St	751+20	CoE Median Landscape Irrigation (Rincon)
		TW-1004	CO 2	3	Meter	1.9	Country Club	Caraway/Cherokee	787+25	Neighborhood Church (Rincon)
		TW-1004	CO 3	1	Meter	0.8	Country Club	E of Cherokee	763+20	CoE Median Landscape Irrigation (Rincon)
		TW-1004	CO 2	2	Meter	2.7	Country Club	E of Nutmeg St	749+92	Gloria Dey Church (Rincon)
		TW-1004	CO 2	2	Meter	3.9	Country Club	W of Center City Pkwy	772+60	Country Club Gardens Apts. (Rincon)
		TW-1004	CO 2	1	Meter	1.9	S. Iris	N of El Norte Pkwy	72+50	Citricado Dental Group (Rincon)
		TW-1004	CO 2	1	Meter	0.2	S. Iris	N of El Norte Pkwy	72+74	Arco (Rincon)
		TW-1004	CO 2	1	Meter	0.3	S. Iris	N of El Norte Pkwy	72+79	Arco (Rincon)
		TW-1005		2	Meter	3	Leslie Lane Reservoir	Hubbard Ln		CoE, 168,000 ft² Landscape Irrigation
					Σ =	5,836				