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# State of California State Energy Resources Conservation and Development Commission

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In the Matter of:

Oakley Generating Station

Docket # 09-AFC-04

Opening Brief of Robert Sarvey

# Introduction

The project owner will be PG&E and Radback Energy is merely the project developer. The project will not be a merchant power project but will be utility owned generation. The CEC siting program is geared for the approval of merchant generation facilities and the certification of the OGS is more properly the jurisdiction of the California Public Utilities Commission where PG&E should be obtaining a certificate of Public Convince and Necessity. The project area is in a corridor of PG&E power plants. The newest Project the Oakley Generating Station began operation in 2009 without a PSD permit. The Contra Costa 6 & 7 units were constructed by PG&E and sold to Mirant in 1999 after PG&E operated the project for 40 years. On of PG&E's largest natural gas terminals is adjacent to the project site. Significant cumulative environmental degradation has occurred through the use of the project area by PG&E for energy production.

PG&E energy facilities over the last 50 years have negatively impacted the nearby Antioch Dunes Preserve by emitting thousand of tons of NOx and ammonia in close proximity to the preserve. The OGS continues the degradation of this preserve through its 98 tons per year on NOx and 120 tons per year of ammonia emissions which result in significant nitrogen deposition at the preserve. USFWS has been clear that the mitigation for nitrogen deposition is inadequate and as proposed the project violates the Endangered Species Act.

The projects significant impacts from the use of fresh water is not mitigated by the applicant and Staff's proposed Condition of Certification Soil and Water 4. LORS

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compliance and CEQA impacts in water resources have not been resolved. The no project alternative is the superior environmental alternative and should be adopted. Staff's environmental justice analysis utilizes an improper baseline and leads to violations of State Environmental Justice LORS. As proposed the project cannot be certified as it violates numerous State and Federal Laws and does not comply with CEQA.

#### **Biological Resources**

The Lange's Metalmark Butterfly is on the brink of extinction, and nitrogen emissions from the Oakley Generating Station and other industrial sources are pushing the species over the edge. The Butterfly's population at the Antioch Dunes National Wildlife Refuge, the species' last natural habitat on Earth, was about 5,000 in 1972. By 2000 the population was 1,185. In 2006 the population was 45 and rose slightly to 132 in 2008. By 2009 the population had declined to 46 and in 2010 only 28 butterflies were counted. <sup>1</sup> Unless actions are rapidly taken to save the Lange's Metalmark Butterfly, it will join five other Bay Area butterflies that have already been driven extinct by urbanization and development over the past 100 years. The Fish and Wildlife Service has presented several letters to the CEC Staff and provided oral testimony at the March 15<sup>th</sup> hearing for the Committee. USFWS has indicated that one of the most critical actions to protect the Butterfly is to reduce and mitigate nitrogen emissions from sources like the OGS which is around 1.5 miles from the Antioch Dunes National Wildlife Refuge.

Nitrogen emissions in the form of nitrogen oxides and, even more powerfully, in the form of ammonia harm the butterfly when the emissions are deposited on the land, changing the chemical composition of the dune soil and creating conditions that are move favorable for invasive weeds. The OGS has the potential to emit 98.78 tpy of Nitrogen Oxides<sup>2</sup> and approximately 120 tpy of ammonia emissions.<sup>3</sup>

Despite significant efforts in 2006, 2007, 2008, and 2009 to manage invasive weeds, invasive weed populations continue to thrive throughout the refuge (USFWS 2009a;

<sup>&</sup>lt;sup>1</sup> Nagano USFWS RT 3-15-11 Page and Exhibit 30 page 4.2-43

<sup>&</sup>lt;sup>2</sup> Exhibit 300 FSA Page 4.1-34

<sup>&</sup>lt;sup>3</sup> Exhibit 301 Appendix A Page 12

USFWS 2009b).<sup>4</sup> This combined with the decline in the butterfly population indicates that the current strategy by itself is not sufficient to prevent the extinction of the species. Staff's proposed mitigation approach requires the applicant to remit \$5,000 in annual payments towards the operation and maintenance budget of the Antioch Dunes NWR. The annual operating budget is approximately \$385,000 and includes money for non-native plant removal/fire prevention, sand acquisition, grazing management, butterfly propagation, and rare plant propagation (Picco 2009).<sup>5</sup>

Staff is required as a part of their assessment to consult with responsible agencies about the projects impacts and mitigation measures. USFWS has been consulted and has provided numerous recommendations for mitigation for the OGS's nitrogen deposition impacts to the Antioch Dunes Preserves indicating, that staff's proposed mitigation is inadequate, and as proposed the project violates the Endangered Species Act. The evidence in the record is that the current restoration program is inadequate as even with the current weed removal and transplantation program and the plant and insect species continue to rapidly decline. USFWS has recommended the following mitigation measures to prevent the extinction of the Metalmark Butterfly the Naked-Stem buckwheat, and the Contra Costa wallflower:

1) USFWS recommends that the applicant: (1) ensure the proposed Oakley Generating Station does not jeopardize Lange's metalmark butterfly, Contra Costa wallflower and Antioch Dunes evening primrose, or result in adverse modification or destruction of critical habitat for these two endangered plants; and (2) obtain authorization for incidental take from the Service for the endangered Lange's metalmark butterfly prior to any earthmoving at the proposed project site.<sup>6</sup>

2) Annual removal of all exotic weeds from a quarter of the Antioch Dunes NWR. Removal methods should include cattle (*Bos taurus*) or other appropriate grazing animals, hand tools, and appropriate mechanical equipment.<sup>7</sup>

3) Annual cultivation of at least 250 individuals of naked-stem buckwheat, 100 individuals of Contra Costa wallflower, and 100 individuals of Antioch Dunes evening primrose, and the planting of these individuals on the Refuge with a success criteria of 50 percent after five years.<sup>8</sup>

<sup>&</sup>lt;sup>4</sup> Exhibit 300 FSA Page 4.2-44

<sup>&</sup>lt;sup>5</sup> Exhibit 300 Page 4.2-45

<sup>&</sup>lt;sup>6</sup> Exhibit 300 Page 4.2-54

<sup>&</sup>lt;sup>7</sup> Exhibit 300 Page 4.2-54

<sup>&</sup>lt;sup>8</sup> Exhbit 300 Page 4.2-54

4) Captive breeding of Lange's metalmark butterfly and the annual release of at least 200 individuals on the Refuge.<sup>9</sup>

Although under section 1744 (e) staff should defer to the USFWS expertise staff believes that the mitigation measures proposed by USFWS are disproportionate based on the OGS annual contribution to the nitrogen deposition at the Antioch Dunes Preserve.

Staff discusses nitrogen deposition impacts in the FSA on page 4.2-43 to page 4.2-46. In those 3 pages staff's analysis relies heavily on previous work on nitrogen deposition done by Dr, Stuart Weiss one of the preeminent experts on nitrogen deposition and its impact on Butterfly populations in the Bay Area ecosystem. In fact staff references Dr. Weiss's work six times in its three page discussion on nitrogen deposition in the FSA

The courts have held that mere payment of a sum of money, without a determination that mitigation will be achieved, does not constitute adequate mitigation under CEQA. (*Kings County Farm Bureau v. City of Hanford*, 221 Cal. App. 3d 692. The Staff's proposal to donate \$5,000 a year to a program that according to the record evidence is inadequate does not provide any assurance that the identified mitigation will be achieved. Therefore, reliance on the mere payment of money in this instance would be inappropriate.

Section 21081.6 of the Public Resources Code requires all state and local agencies to establish monitoring or reporting programs whenever approval of a project relies upon a mitigated negative declaration or an environmental impact report (EIR). The monitoring or reporting program must ensure implementation of the measures being imposed to mitigate or avoid the significant adverse environmental impacts identified in the mitigated negative declaration or EIR. Giving \$5,000 a year to a plan that the record indicates is already failing does not meet the requirements. There is no tracking how the money will be spent and there is no way to measure if this payment will result in mitigation of the projects significant impacts.

## Soil and Water Resources

<sup>&</sup>lt;sup>9</sup> Exhbit 300 Page 4.2-55

Two primary policy documents provide the basis for the CEC's analysis of water supplies for new the OGS. The CEC Integrated Energy Policy Report (CEC, 2003) established "two tests" for the use of fresh water (or conversely, for not using recycled water):

...the [CEC] 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."** ... The [CEC] interprets "environmentally undesirable" to mean the same as having a "significant adverse environmental impact" and "economically unsound" to mean the same as "economically or otherwise infeasible."

The other policy is the State Water Resources Control Board's "Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Powerplant Cooling" (Resolution 75-58). Resolution 75-58 sets forth the State Water Resources Control Board's policy that fresh inland waters should be the lowest priority source of power plant cooling water and that the loss of fresh inland water should be avoided.<sup>10</sup>

The proposed condition # 4 does not comply with these policies. Staff's and Applicants proposed condition of certification Soil and Water 4 relies on events occurring which are outside the control of the Commission and the Applicant. The condition would require that ISD build a recycled water line within 1 mile of the OGS. It requires the construction of a high TDS wastewater pipeline to be built within 1 mile of the OGS. It requires the ISD to acquire the necessary easements to extend the right of way to the OGS. It also requires ISD to provide certain rates that OGS deems acceptable. All of these actions are speculative and conditioned on actions by other agencies. Mitigation for significant impacts under CEQA cannot rely on speculative measures or measures which are predicated on other agencies actions which may or may not happen. The applicant must provide a demonstration that the use of the recycled water is **"environmentally undesirable"** or **"economically unsound."** otherwise the applicant has not met the burden of proof that recycled water is infeasible.

<sup>10</sup> RT 3-15-11 Page 108

Further to comply with Resolution 75-58 and the 2003 IPER the applicant should be required to use a Zero Liquid discharge System or demonstrate that it is infeasible or not cost effective.

# Alternatives

#### The OGS site is not a Brownfield Site.

The site selection process for alternatives was flawed because it does not accomplish one of the main objectives of the project. Energy Commission staff determined the OGS objectives to be; Provide efficient, reliable, and predictable power supply capable of supporting the growing power needs of the Bay Area. Provide operational flexibility and rapid-start and dispatch capability. Site the project within the area of electrical demand and near existing infrastructure, thus minimizing the project's linear facilities. Site the project on a Brownfield or industrial site.<sup>11</sup>

The OGS would be located in Contra Costa County, within Oakley city limits. The approximately 22-acre parcel is currently farmed for wine grapes; the California Department of Conservation designates the site as Farmland of Statewide Importance.<sup>12</sup> A (1.6-acre) conservation area exists on site, which includes a 0.62-acre mitigation wetland. The OGS site is not a Brownfield.

The legal definition of a Brownfield Site is found in Public Law 107-118 (H.R. 2869) - "Small Business Liability Relief and Brownfields Revitalization Act" signed into law January 11, 2002, "The term "brownfield site" means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.<sup>13</sup>

Black's Law Dictionary defines a brownfield site as "[a]n abandoned, idled, or underused industrial or commercial site that is difficult to expand or redevelop because of environmental contamination." The OGS does not meet any of these descriptions and

<sup>&</sup>lt;sup>11</sup> Exhibit 300 Page 6-5 <sup>12</sup> Exhibit 300 Page 6-2

<sup>&</sup>lt;sup>13</sup> http://epa.gov/brownfields/overview/glossary.htm

is clearly not a Brownfield Site. The OGS site fails to meet one of the projects main objectives and a priority of the State to locate the project on a brownfield site.

### The OGS is not a Rapid Start Technology

As mentioned above one of the objectives of the project was to, "Provide operational flexibility and rapid-start and dispatch capability. The CAISO categorizes units with startup times less than 10 minutes as fast-start in the report titled, 2010 Integration of Renewable Resources (CAISO 2010).<sup>14</sup> Fast start units are needed to respond to rapid changes in output of renewable generation. The OGS is not capable of starting up in less than 10 minutes. Start up times for the OGS could be as long as 90 minutes.<sup>15</sup> Minimum load for one turbine of the OGS would be over 160 MW which does not provide a great deal of operating flexibility. The OGS technology does not meet one of the projects primary objectives which is to provide operationally flexibility and a startup time of less than 10 minutes.

# The No Project Alternative is the Environmentally Superior Alternative.

The CEQA Guidelines state that "the purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." (Cal. Code Regs., tit. 14, § 15126.6, subd. (1).) Toward that end, the "no project" analysis considers "existing conditions" and "what would be reasonably expected to occur in the foreseeable future if the project were not approved." (§ 15126.6, subd. (e)(2).)

Staff rejects the no project alternative in its typical boilerplate fashion with no real analyses to justify their conclusions. First staff states that, "If the project were not built, the region would not benefit from the local and efficient source of 624 MW of new generation that this facility would provide."<sup>16</sup> That conclusion is only valid if the region actually needs 624 MW of new generation. The evidence in the record demonstrates that with the unprecedented reserve margins in PG&E's service territory and the CEC's recent

 <sup>&</sup>lt;sup>14</sup> Exhibit 300 Page 4.1-85
 <sup>15</sup> FDOC Page 18

<sup>&</sup>lt;sup>16</sup> Exhibit 300 Page 6-20

demand forecasts there is no need for another 624 MW of new generation in the project area.

# **Unprecedented Reserve Margins**

"Predicted reserve margins in PG&E's service territory continue to grow and reflect both the economic downturn and the success of the states energy efficiency policies. CAL-ISO's 2009 summer assessment predicted the reserve margin for PG&E's service territory would be 30.6%.<sup>17</sup> CAL-ISO's 2010 Summer Loads and Resources Operations Preparedness Assessment predicts a 38.6 % Planning Reserve Margin in PG&E's service territory.<sup>18</sup><sup>19</sup> The CAL-ISO load forecast for summer 2011 went down in Northern California by about 250 MW.<sup>20</sup>

Summer 2010 Supply & D	)em an	d Outl	ook
Resource Adequacy Planning Conventions	ISO	SP26	NP26
Existing Generation <sup>1</sup>	49,807	23,326	26,481
Retirements (known/expected) <sup>2</sup>	(6)	0	(6)
High Probability CA Additions	1,086	1,057	29
Hydro Derates	0	0	0
Net Interchange (Moderate)	10,100	9,200	2,050
Total Net Supply (MW)	60,988	33,583	28,555
Demand (1-in-2 Summer Temperature)	47,139	27,198	21,154
DR & Interruptible Programs <sup>3</sup>	2,403	1,668	734
Planning Reserve <sup>4</sup>	34.5%	29.6%	38.5%
<ul> <li>as of 3/22/2010 (refer to Table 8)</li> <li>as of 3/22/2010 (refer to Table 8)</li> <li>(refer to Table 9)</li> </ul>			

Planning Reserve calculation (Total Net Supply + Demand Response + Interruptibles)/ Forecast Demand)-1.

<sup>&</sup>lt;sup>17</sup> <u>http://www.caiso.com/23ab/23abd69829524.pdf</u> <sup>18</sup> <u>http://www.caiso.com/2793/2793ae4d395f2.pdf</u>

<sup>&</sup>lt;sup>19</sup> Attachment A DRA Ex Parte Contact October 12, 2010 http://docs.cpuc.ca.gov/efile/EXP/125179.pdf

<sup>&</sup>lt;sup>20</sup> http://www.caiso.com/2788/2788ab565da00.pdf Page 24 2011 LOCAL CAPACITY TECHNICAL ANALYSIS FINAL REPORT AND STUDY RESULTS

The Division of Ratepayer Advocates (DRA) predicts an even higher reserve margin of 40% in PG&E's service territory for 2010. DRA also notes that the 40% predicted reserve margin does not include 2,333 MW of approved new capacity including Colusa, Russell City, Mariposa, Marsh Landing, GWF Tracy, and Los Esteros.<sup>21</sup> The Oakley Project is not needed when considering the huge reserve margins.

# Recent CEC Demand Forecasts

In December of 2009 the California Energy Commission approved the California Energy Demand 2010-2020 forecast a revised demand and peak load forecast. "*The current forecast is markedly lower than the forecast in the 2007 California Energy Demand Forecast, primarily because of lower expected economic growth in both the near and long term as well as increased expectations of savings from energy efficiency.*"<sup>22</sup>

 <sup>&</sup>lt;sup>21</sup> Attachment A DRA Ex Parte Contact October 12, 2010 <u>http://docs.cpuc.ca.gov/efile/EXP/125179.pdf</u>
 <sup>22</sup> 2009 IEPR page 3 <u>http://www.energy.ca.gov/2009publications/CEC-100-2009-003/CEC-100-2009-003-CMF.PDF</u>, Exhibit 400 Page 2

			Consumption (0	GVVH)	
	CED 2007	CED 2009	CED 2009	Percent Difference	Percent Difference, CED
	(Oct. 2007)	Draft mid-rate	Adopted (Dec.	CED 2009 Adopted	2009 Adopted and CED
		case (June	2009)	and CED 2007	2009 Draft
		2009)			
1990	86,803	86,803	86,803	0.00%	0.00%
2000	101,331	101,331	101,333	0.00%	0.00%
2008	107,591	106,753	111,128	3.29%	4.10%
2010	110,503	106,240	108,344	-1.95%	1.98%
2015	117,806	110,878	115,828	-1.68%	4.46%
2018	121,873	112,959	119,814	-1.69%	6.07%
Verage Ann	ual Growth Ra	tes			
990-2000	1.56%	1.56%	1.56%		
2000-2008	0.75%	0.65%	1.16%		
1000-2000	••				
	1.34%	-0.24%	-1.26%		
2000-2008 2008-2010 2010-2018			-1.26% 1.27%		
2008-2010	1.34%		1.27%		
2008-2010	1.34% 1.23%	0.77%	1.27% Peak (MW		
008-2010	1.34% 1.23% CED 2007	0.77% CED 2009	1.27% Peak (MW CED 2009	Percent Difference,	
008-2010	1.34% 1.23%	0.77% CED 2009 Draft mid-rate	1.27% Peak (MW CED 2009 Adopted (Dec.	Percent Difference, CED 2009 Adopted	2009 Adopted and CED
2008-2010	1.34% 1.23% CED 2007	0.77% CED 2009 Draft mid-rate case (June	1.27% Peak (MW CED 2009	Percent Difference,	Percent Difference, CEL 2009 Adopted and CED 2009 Draft
2008-2010 2010-2018	1.34% 1.23% <i>CED 2007</i> (Oct. 2007)	0.77% CED 2009 Draft mid-rate case (June 2009)	1.27% Peak (MW <i>CED 2009</i> <i>Adopted</i> (Dec. 2009)	Percent Difference, CED 2009 Adopted and CED 2007	2009 Adopted and CED 2009 Draft
2008-2010 2010-2018 1990	1.34% 1.23% <i>CED 2007</i> (Oct. 2007) 17,055	0.77% <i>CED 2009</i> <i>Draft</i> mid-rate case (June 2009) 17,013	1.27% Peak (MW <i>CED 2009</i> <i>Adopted</i> (Dec. 2009) 17,250	Percent Difference, CED 2009 Adopted and CED 2007 1.14%	2009 Adopted and CEL 2009 Draft 1.39%
2008-2010 2010-2018 1990 2000	1.34% 1.23% <i>CED 2007</i> (Oct. 2007) 17,055 20,716	0.77% <i>CED 2009</i> <i>Draft</i> mid-rate case (June 2009) 17,013 20,665	1.27% Peak (MW <i>CED 2009</i> <i>Adopted</i> (Dec. 2009) 17,250 20,628	Percent Difference, CED 2009 Adopted and CED 2007 1.14% -0.42%	2009 Adopted and CED 2009 Draft 1.39% -0.18%
2008-2010 2010-2018 1990 2000 2008	1.34% 1.23% <i>CED 2007</i> (Oct. 2007) 17,055 20,716 23,413	0.77% <i>CED 2009</i> <i>Draft</i> mid-rate case (June 2009) 17,013 20,665 23,405	1.27% Peak (MW CED 2009 Adopted (Dec. 2009) 17,250 20,628 23,805	Percent Difference, <i>CED 2009 Adopted</i> and <i>CED 2007</i> <u>1.14%</u> -0.42% <u>1.67%</u>	2009 Adopted and CEL 2009 Draft 1.39% -0.18% 1.71%
2008-2010 2010-2018 1990 2000 2008 2010	1.34% 1.23% CED 2007 (Oct. 2007) 17,055 20,716 23,413 24,050	0.77% <i>CED 2009</i> <i>Draft</i> mid-rate case (June 2009) 17,013 20,665 23,405 23,240	1.27% Peak (MW CED 2009 Adopted (Dec. 2009) 17,250 20,628 23,805 23,479	Percent Difference, <i>CED 2009 Adopted</i> and <i>CED 2007</i> <u>1.14%</u> -0.42% <u>1.67%</u> -2.37%	2009 Adopted and CEL 2009 Draft 1.39% -0.18% 1.71% 1.03%
2008-2010 2010-2018 1990 2000 2008 2010 2015	1.34% 1.23% CED 2007 (Oct. 2007) 17,055 20,716 23,413 24,050 25,760	0.77% <i>CED 2009</i> <i>Draft</i> mid-rate case (June 2009) 17,013 20,665 23,405 23,240 24,606	1.27% Peak (MW CED 2009 Adopted (Dec. 2009) 17,250 20,628 23,805 23,479 25,163	Percent Difference, <i>CED 2009 Adopted</i> and <i>CED 2007</i> 1.14% -0.42% 1.67% -2.37% -2.32%	2009 Adopted and CEL 2009 Draft 1.39% -0.18% 1.71% 1.03% 2.26%
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1990 2008-2010 2010-2018 1990 2000 2008 2010 2015 2018 Average Ann	1.34% 1.23% <i>CED 2007</i> (Oct. 2007) 17,055 20,716 23,413 24,050 25,760 26,754 ual Growth Ra	0.77% CED 2009 Draft mid-rate case (June 2009) 17,013 20,665 23,405 23,240 24,606 25,341 tes	1.27% Peak (MW CED 2009 Adopted (Dec. 2009) 17,250 20,628 23,805 23,479 25,163 26,125	Percent Difference, <i>CED 2009 Adopted</i> and <i>CED 2007</i> 1.14% -0.42% 1.67% -2.37% -2.32%	2009 Adopted and CEL 2009 Draft -0.18% 1.71% 1.03% 2.26%
1990 2008-2010 2010-2018 1990 2000 2008 2010 2015 2018 Average Ann 990-2000	1.34% 1.23% CED 2007 (Oct. 2007) 17,055 20,716 23,413 24,050 25,760 26,754 ual Growth Ra 1.96%	0.77% CED 2009 Draft mid-rate case (June 2009) 17,013 20,665 23,240 24,606 25,341 tes 1.96%	1.27% Peak (MW CED 2009 Adopted (Dec. 2009) 17,250 20,628 23,805 23,479 25,163 26,125 1.80%	Percent Difference, <i>CED 2009 Adopted</i> and <i>CED 2007</i> 1.14% -0.42% 1.67% -2.37% -2.32%	2009 Adopted and CEL 2009 Draft -0.18% 1.71% 1.03% 2.26%
1990 2008-2010 2010-2018 1990 2000 2008 2010 2015 2018 Average Ann 990-2000 2000-2008	1.34% 1.23% CED 2007 (Oct. 2007) 17,055 20,716 23,413 24,050 25,760 26,754 ual Growth Ra 1.96% 1.54%	0.77% CED 2009 Draft mid-rate case (June 2009) 17,013 20,665 23,405 23,240 24,606 25,341 tes 1.96% 1.57%	1.27% Peak (MW CED 2009 Adopted (Dec. 2009) 17,250 20,628 23,805 23,479 25,163 26,125 1.80% 1.80% 1.81%	Percent Difference, <i>CED 2009 Adopted</i> and <i>CED 2007</i> 1.14% -0.42% 1.67% -2.37% -2.32%	2009 Adopted and CEL 2009 Draft 1.39% -0.18% 1.71% 1.03% 2.26%
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Table 10: PG&E Planning Area Forecast Comparison

Source: California Energy Commission, 2009

As can be seen in the table above the CEC's 2010-2020 Adopted Forecast predicts that peak demand in PG&E's service territory in 2010 will be 810 MW less than the demand for 2010 predicted in the 2007 CEC demand forecast.<sup>23</sup>

The CEC's latest Revised Short Term Peak Demand Forecast for the 2011-2012 period predicts that PG&E's demand in the PG&E service territory for 2012 is 851 MW less than the 2009 IEPR.<sup>24</sup> The difference between the CEC's most recent demand

<sup>&</sup>lt;sup>23</sup> CALIFORNIA ENERGY DEMAND 2010-2020 ADOPTED FORECAST

Page 55 http://www.energy.ca.gov/2009publications/CEC-200-2009-012/CEC-200-2009-012-CMF.PDF <sup>24</sup> Table 5 Page 13 <u>http://www.energy.ca.gov/2011publications/CEC-200-2011-002-CTF.PDF</u> Table 5: Revised and 2009 IEPR Weather-Adjusted Peak

forecast for PG&E's service territory is 1,661 MW less than the demand forecast for PG&E's service territory in 2007.

TAC Area/Load Pocket	Year	Revised 1-in-2 Peak Demand	2009 IEPR 1-in-2 Peak Demand	1-in-2 Difference	Revised 1-in-10 Peak Demand	2009 IEPR 1-in-10 Peak Demand	1-in-10 Difference
PG&E	2011	21,174	21,988	-814	22,716	23,594	-878
FGAE	2012	21,478	22,329	-851	23,033	23,959	-926
PG&E Bay	2011	8,870	8,768	102	9,226	9,131	95
Area	2012	8,995	8,880	115	9,355	9,247	108
PG&E non-	2011	12,304	13,220	-916	13,490	14,463	-973
Вау	2012	12,483	13,449	-966	13,678	14,711	-1,033
SCE	2011	23,077	23,785	-708	25,107	25,878	-771
SUE	2012	23,453	24,142	-689	25,517	26,266	-749
SDG&E	2011	4,365	4,578	-213	4,801	5,036	-235
	2012	4,438	4,658	-220	4,882	5,124	-242
California	2011	47,449	49,143	-1,694	51,361	53,200	-1,839
ISO Total Coincident	2012	48,184	49,902	-1,718	52,150	54,021	-1,871

Table 5: Revised and 2009 IEPR Weather-Adjusted Peak Demand (MW) Forecast by TAC/Load Pocket, 2011 and 2012

Source: California Energy Commission, 2011.

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Staff's primary conclusion that there is a benefit from another 624 MW of new generation that this facility would provide is based on the assumption that 624 MW of new natural gas fired generation is needed."<sup>26</sup> The reserve margins in PG&E's service territory are at historical highs at 38.5% which is twice as large as any planning reserve margin required. Currently under construction is 2,333 MW of additional generation in PG&E's service territory. Recent CEC forecast predict a reduction in demand for the current period and the 2010-2020 period even under the best of economic conditions. The record reflects that an additional 624 MW of natural gas fired generation does not benefit the region and siphons off 1.5 billion dollars in scarce resources that should be used for projects which are higher in the loading order.

Economic Impacts of the OGS

<sup>&</sup>lt;sup>26</sup> Exhibit 300 Page 6-20

Staff's next reasons that the OGS is superior to the no project alternative in that the OGS will create construction and operations jobs. Staff's analysis does not examine the 1.5 billion dollars<sup>27</sup> of ratepayer money that will be spent on this unneeded project which dwarfs any local economic benefit to be derived from the OGS. Further should this 1.5 billion dollars of ratepayer money be spent on energy efficiency the superior environmental alternative, jobs would be created and as staff recognizes energy efficiency programs save money for ratepayers who can then spend that additional money on goods and services. As Staff's testimony states, "The Energy Commission noted that energy efficiency helped flatten the state's per capita electricity use and saved consumers more than \$56 billion since 1978 (CPUC 2008)."<sup>28</sup> That amounts to an average of 1.7 billion dollars a year.

Staff's next reason for not choosing the no project alternative is that, "In the absence of the OGS project other power plants could likely be constructed in the project area or in California to serve the demand that could have been met with the OGS project. Staff's testimony does not consider recent CEC reports mentioned above which conclude that demand is falling not rising. Staff's testimony ignores the fact that power plants are not constructed in California without a contract which involves the Long Term Procurement process. With the high reserve margins and the drop in demand due to energy efficiency programs it would speculative to assume that new power projects will be authorized and constructed. In addition any new projects would be reviewed by the Energy Commission for environmental impacts.

Staff then speculates that, "new plants constructed in the area could utilize undeveloped land (greenfield sites), possibly creating significant environmental impacts."<sup>29</sup> Staff ignores its own testimony that the OGS 22-acre parcel is currently farmed for wine grapes; the **California Department of Conservation designates the site as Farmland of Statewide Importance and the site also contains a wetland**."<sup>30</sup> Staff also ignores that any new plants would have to undergo environmental review and

<sup>&</sup>lt;sup>27</sup> Exhibit 400 Attachment A

<sup>&</sup>lt;sup>28</sup> Exhibit 300 Page 6-16

<sup>&</sup>lt;sup>29</sup> Exhibit 300 Page 6-20

<sup>&</sup>lt;sup>30</sup> Exhibit 300 Page 6-2

projects which create significant environmental impacts would not be approved by this Commission.

Staff further speculates that, "If no new natural gas plants were constructed, reliance on older power plants may increase and environmental consequences would occur. The evidence in the record is that demand is decreasing due to energy efficiency and the economic downturn so it is speculative to conclude that older plants will operate more. Recent history shows a yearly drop in energy production for older plants. The OGS is slated to begin operation in 2016. There is currently 2,333 MW of approved new capacity including Colusa, Russell City, Mariposa, Marsh Landing, GWF Tracy, and Los Esteros all which will begin operation before 2016.<sup>31</sup> All of this generation is located in the PG&E service territory with over 1,000 MW in the Bay Area Load Pocket and 719 MW of it right next door to the OGS. With the existing 38.5% planning reserve margin<sup>32</sup> and the construction of these new power projects whose impacts have been thoroughly vetted by this Commission it is highly unlikely that older generation will be utilized more.

The staff's alternative's analysis also states that the Oakley Project would compensate for the intermittency of renewable energy sources. This is an argument now used in every siting project to replace the now defunct 2001 energy crisis justification for unneeded resources. Staff provides no analysis demonstrating that the OGS is needed to back up intermittent renewables. The OGS's 90 minute start time is not even considered a fast start project. <sup>33</sup> In order to back up intermittent renewables start times of 10 minutes or less are needed. Adequate generation currently exists in the Bay Area Load Pocket to back up intermittent renewables. The CPUC has approved contracts for the 184 MW Mariposa Project and the 719 MW Marsh Landing Project which are considered fast start projects and both are located in the Bay Area Load Pocket. The CPUC has also approved a contract for the 109 MW upgrade of the Los Esteros Critical Energy Facility. This brings the total of new generation to 1,012 MW with 903 MW being fast start natural gas

<sup>&</sup>lt;sup>31</sup> Attachment A DRA Ex Parte Contact October 12, 2010 <u>http://docs.cpuc.ca.gov/efile/EXP/125179.pdf</u> <sup>32</sup> Exhibit 400 Page 4

<sup>&</sup>lt;sup>33</sup>The CAISO categorizes units with startup times less than 10 minutes as *fast-start* and units with startup times less than 2 hours as *short-start* in the report for 2010 Integration of Renewable Resources (CAISO 2010) Exhibit 300 page 4.1-85

generation in the Bay Area Load Pocket.<sup>34</sup> The CAL-ISO 2012-2014 Local Capacity Technical Analysis reports that for the 2012-2014 planning period it relies on only 208 MW of wind capacity for LCR.<sup>35</sup> In order to determine if more generation with 90 minute start times and a minimum loads of 160 MW is needed to back up intermittent renewables in the Bay Area Load Pocket an analysis would need to be conducted and no one has performed that analysis.

Without a doubt the no project alternative is the environmentally superior alternative and the 1.5 billion dollars spent on the unneeded OGS should be spent on energy efficiency measures which could provide a substantial reduction in demand and comply with the states loading order. This would eliminate greenhouse gases, environmental justice considerations, potable water consumption, impacts to sensitive species, and save the ratepayers money. The evidentiary record supports these conclusions.

## Energy Efficiency is the Superior Alternative.

Staff's testimony concludes that, "Conservation and demand-side management are important for California's energy future and cost effective energy efficiency is considered as the resource of first choice for meeting California's energy needs. However, with population growth and increasing demand for energy, conservation and demand-management alone are not sufficient to address all of California's energy needs." As discussed above demand for energy in the State is expected to decrease from previous peak load estimates even in the best case economic scenario.<sup>36</sup> As staff's testimony admits, "The Energy Commission noted that energy efficiency helped flatten the state's per capita electricity use and saved consumers more than \$56 billion since 1978 (CPUC 2008). The investor-owned utilities' 2006-2008 efficiency portfolio marks the single-largest energy efficiency campaign in U.S. history, with a \$2 billion investment by California's energy ratepayers (CPUC 2008). However, with population growth, increasing demand for energy, and the need to reduce greenhouse gases, there is an even greater need for energy efficiency." The 1.5 Billion dollars that is proposed to be spent

<sup>35</sup> CAL-ISO 2012-2014 Local Capacity Technical Analysis Pages 49-52
 <sup>36</sup> CALIFORNIA ENERGY DEMAND 2010-2020 ADOPTED FORECAST

<sup>&</sup>lt;sup>34</sup> Peak July Conditions

http://www.energy.ca.gov/2009publications/CEC-200-2009-012/CEC-200-2009-012-CMF.PDF

on the OGS can be utilized for energy efficiency measures which current analyses demonstrate have the ability to replace the need for the OGS.<sup>37</sup>

## Environmental Justice

The Environmental Justice screening process relies on Year 2000 U.S. Census data to determine the presence of minority and below-poverty-level populations.<sup>38</sup> Staff views the environmental justice analysis as a three step process recommended by the U.S. EPA's guidance documents in regard to "*outreach and involvement; and if warranted, a detailed examination of the distribution impacts on segments of the population.*"<sup>39</sup> Staff claims to have followed each of the above steps for the following eleven (11) sections in the FSA: Air Quality, Hazardous Materials, Land Use, Noise and Vibration, Public Health, Socioeconomics, Soils and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, and Waste

**Management**.<sup>40</sup> Staff further claims, "Over the course of the analysis for each of these technical disciplines, staff considered potential impacts and mitigation measures, and whether there would be a significant impact on an environmental justice population."<sup>41</sup> Review of the evidentiary record demonstrates otherwise.<sup>42</sup>

Staff's analysis used the 2000 census data to determine if a minority population was present near the OGS project. The 2000 U.S. Census total population within the six-mile radius of the proposed site is 138,443 persons, with a minority population of 57,477 persons, or about 42% of the total population.<sup>43</sup> The 2000 census data at the time staff conducted its analysis in the FSA was over 10 years old. CEQA and environmental justice LORS require that the baseline conditions reflect conditions that exist when the

<u>2014+Local+Capacity+Technical+Analysis&s it=keyword rollover</u> Page A-6, Attachment 3 Page 1, Incremental Impact of Energy Efficiency Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecast

<sup>&</sup>lt;sup>37</sup> <u>http://search.aol.com/aol/search?query=CAL-ISO+2012-</u>

http://www.energy.ca.gov/2010publications/CEC-200-2010-001/index.html <sup>38</sup> Exhibit 300 Page 1-6

<sup>&</sup>lt;sup>39</sup> Exhibit 300 Page 1-6

<sup>&</sup>lt;sup>40</sup> Exhibit 300 Page 1-6

<sup>&</sup>lt;sup>41</sup> Exhibit 300 Page 6-2

<sup>&</sup>lt;sup>42</sup> RT 3-15-11 Page 68, RT 3-25-11 Page 22, 23

<sup>&</sup>lt;sup>43</sup> Exhibit 300 Page 1-6

project submits its application. Current census figures show that the project area is now majority minority and the 2000 census data employed by the Staff is not the true baseline for the analysis. Currently the population in the cities surrounding the project is 201,068 people with the minorities comprising  $67.2\%^{44}$  of the population as seen below.

City	Population	White
Antioch	102,372	36,490
Brentwood	51,481	27,944
Knightson	1,568	1,023
Oakley	35,432	16,815
Pittsburg	63,264	12,684
	201,068	65,989

Staff's analysis was conducted with the improper CEQA baseline which led to a failure in the environmental justice analysis in Land Use and Alternatives. Staff's Land Use witness also was asked, "did you consider environmental justice when you evaluated the cumulative impacts from this project and other reasonably foreseeable development projects?" Staff's Land Use witness replied, "Environmental justice usually isn't addressed in land use if the socioeconomics staff determines that there is no affected population. So with that regard we were not informed of an affected population that would be disproportionately impacted so we did not analyze it further."<sup>45</sup> Even assuming staff's demographic screening analysis was proper pockets of minority residents do occur around the project<sup>46</sup> and an analysis of impacts to those resident should have been conducted. On large pocket of minority residents resides right next to the project. Staff's alternatives witness when asked, "in your site selection analysis did you consider any environmental justice considerations? Staff's witness replied, "A Environmental justice is dealt with in the socioeconomic section of the FSA."<sup>47</sup> It appears that staff's alternatives witness conducts no Environmental Justice Assessment under any circumstances because that is," dealt with in the socioeconomic section.".

<sup>&</sup>lt;sup>44</sup><u>http://www.dof.ca.gov/research/demographic/state census data center/census 2010/documents/2010Census Table3A RedistrictingFile.xls</u>

<sup>&</sup>lt;sup>45</sup> RT 3-25-11 Page 22, 23

<sup>&</sup>lt;sup>46</sup> Socioeconomics Figure 1 Exhibit 300 Page 4.8-16

<sup>&</sup>lt;sup>47</sup> RT 3-15-11 Page 68

Since staff did not use the proper baseline to determine whether an Environmental Justice population exists in the Land Use and the Alternatives anlaysis hence they failed to implement the states goals and polices (LORS) for implementing environmental justice considerations into the siting of the OGS. Even if the project area was not a minority community staff identified pockets of minority residents and Environmental Justice LORS would require consideration of the impacts of the OGS on the pockets of minorities. Therefore this Commission may not certify this project as it is not in compliance with State LORS for Environmental Justice. The State Lands Commission under the guidance of OPR has developed a framework for environmental justice that represents what the State of California considers a proper environmental justice analysis for its departments. The analysis should include:

1. Identifying relevant populations that might be adversely affected by Commission programs or by projects submitted by outside parties for its consideration.

2. Seeking out community groups and leaders to encourage communication and collaboration with the Commission and its staff.

3. Distributing public information as broadly as possible and in multiple languages, as needed, to encourage participation in the Commission's public processes.

4. Incorporating consultations with affected community groups and leaders while preparing environmental analyses of projects submitted to the Commission for its consideration.

5. Ensuring that public documents and notices relating to human health or environmental issues are concise, understandable, and readily accessible to the public, in multiple languages, as needed.

6. Holding public meetings, public hearings, and public workshops at times and in locations that encourage meaningful public involvement by members of the affected communities.

7. Educating present and future generations in all walks of life about public access to lands and resources managed by the Commission.

8. Ensuring that a range of reasonable alternatives is identified when siting facilities that may adversely affect relevant populations and identifying, for the Commission's consideration, those that would minimize or eliminate environmental impacts affecting such populations.

9. Working in conjunction with federal, state, regional, and local agencies to ensure consideration of disproportionate impacts on relevant populations, by instant or cumulative environmental pollution or degradation.

10. Fostering research and data collection to better define cumulative sources of pollution, exposures, risks, and impacts.

11. Providing appropriate training on environmental justice issues to staff and the Commission so that recognition and consideration of such issues are incorporated into its daily activities.

12. Reporting periodically to the Commission on how environmental justice is a part of the programs, processes, and activities conducted by the Commission and proposing modifications as necessary.<sup>48</sup>

Staff's Environmental Justice analysis never made it past the first step o identifying the proper demographics for the community. Therefore it never even attempted to complete the rest of the required steps of an Environmental Justice Analysis for a State Agency in California.

# Land Use

The project is zoned Utility Energy District. The purpose of the UE District is to allow a designated area for uses involved in the clean production of electricity within the City of Oakley, which are compatible with adjacent business parks and light industrial areas. The UE zoning district is specifically for "clean energy" or light pollution-generating facilities; any potentially "dirty" or heavy pollution-generating facilities are not appropriate for, and are strictly prohibited from, the Utility Energy District. The OGS has the potential to emit over 98 tons per year of NOx, 63 tons of PM 2.5, 98 tons per year of CO, 29 tons of VOC, and 12.4 tons per year of SOX. The project also has the potential to emit **1,884,810 MTCO2e/yr**. This is hardly **a** light pollution-generating facility.

The OGS would require a conditional use permit pursuant to Oakley Zoning Code Section 9.1.604 (c). Section 9.1.604 (g) of the Oakley Zoning Code limits building heights to 100 feet in the UE district.<sup>49</sup> The air cooled condenser building is 124 feet in

<sup>&</sup>lt;sup>48</sup> California Lands Commission Environmental Justice Policy

http://www.slc.ca.gov/policy\_statements/Env\_Justice/Environmental%20Justice%20Policy%20Final%20 Web.pdf

<sup>&</sup>lt;sup>49</sup> <u>http://www.codepublishing.com/CA/Oakley/</u>

height<sup>50</sup> so the project does not comply with restrictions on building height in the UE District. The project

<sup>&</sup>lt;sup>50</sup> Exhibit 300 Page 4.12-6