



DPG 12-462

November 2, 2012

California Energy Commission
Docket Office
Attn: Docket 12-IEP-1c
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512



Subject: Information Request for As-Operating Project Costs for the Cosumnes Power Plant

As requested, SMUD hereby submits the attached information in response to the CEC's September 25, 2012 "Information Request for As-Operating Project Costs for the Cosumnes Power Plant". All information is based on actual operating data obtained through a review of plant and corporate files for the time period between 2006 and 2011.

We are not choosing to designate any of the provided information as confidential. As a public agency, all of the provided information would be available to the general public if requested through a California Public Records Act request.

If you have any questions regarding this submittal, feel free to contact me directly at (916) 732-6584 or via email @ ross.gould@smud.org.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Ross Gould".

Ross Gould
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Cosumnes Power Plant (01-AFC-19C) As-Operating Information Request			Confidential <input checked="" type="checkbox"/> 1
#	Operating Cost Information Request Parameter		
1	Total Annual Operating Costs (Cost should be inclusive of fuel and all other operating costs)	2006 - \$ MM <u>128.6</u> 2007 - \$ MM <u>192.5</u> 2008 - \$ MM <u>213.4</u> 2009 - \$ MM <u>233.8</u> 2010 - \$ MM <u>254.1</u> 2011 - \$ MM <u>248.9</u> Total operating cost value basis: 1) Costs are provided <input checked="" type="checkbox"/> with sales and use tax or <input type="checkbox"/> without sales and use tax included	<input type="checkbox"/>
2	Operating hours and Startups/Shutdowns Hours (average considering number of turbines at site)	2006 – Operating Hours <u>5607.15</u> Startup/shutdown hours <u>115.5</u> No. of Startups <u>33</u> 2007 – Operating Hours <u>8009.39</u> Startup/shutdown hours <u>45.5</u> No. of Startups <u>13</u> 2008 – Operating Hours <u>8004.10</u> Startup/shutdown hours <u>52.5</u> No. of Startups <u>15</u> 2009 – Operating Hours <u>7396.60</u> Startup/shutdown hours <u>52.5</u> No. of Startups <u>15</u> 2010 – Operating Hours <u>7845.17</u> Startup/shutdown hours <u>31.5</u> No. of Startups <u>9</u> 2011 – Operating Hours <u>7586.23</u> Startup/shutdown hours <u>35.0</u> No. of Startups <u>10</u>	
3	Natural Gas – Sources of Fuel.	Utility Supplier Other sources (describe) <u>SMUD provides its own procurement and transportation services for all natural gas used in the Cosumnes Power Plant</u>	
4	Natural Gas Average Annual Price (\$/MMBtu)	SMUD Portfolio gas cost at burner tip (annual average \$/MMBtu): 2006 <u>\$6.422</u> 2007 <u>\$6.493</u> 2008 <u>\$6.684</u> 2009 <u>\$8.412</u> 2010 <u>\$8.585</u> 2011 <u>\$9.303</u>	<input type="checkbox"/>
5	Water Supply Source/Cost/Consumption (2011)	SMUD exercises its water rights through a US Bureau of Reclamation contract to provide water to the Cosumnes Power Plant via the Folsom South Canal. Average Cost \$ <u>40.63/acre-ft</u> , Average Consumption <u>2,055.8</u> acre-ft	<input type="checkbox"/>
6	Staffing (average annual cost – 2011 dollars) (please provide staffing in full time equivalents)	Managers <u>2</u> #, Operators <u>12</u> #, Mechanics/I&E Techs <u>4</u> #, Laborers <u>0</u> #, Support Staff <u>3</u> #, Other <u>N/A</u> # Total Payroll <u>N/A</u> \$/yr. Note; all services are provided through an O&M Contractor, SMUD/SFA does not see payroll costs. Instead, we pay a fixed fee for services	<input type="checkbox"/>
7	Ongoing Operating Costs (average annual cost – 2011 dollars)	Consumables Costs (Chemicals, etc) <u>\$600,000/yr</u> , Equipment acquisition and leasing costs <u>\$30,000/yr</u> , Regulatory Filings, etc. <u>\$41,000/yr</u> , Ongoing Emissions Offsets Costs <u>\$29,000/yr</u> Other Direct Costs <u>\$42,000/yr</u>	<input type="checkbox"/>
8	Estimate of Actual Annual Maintenance Costs (2011 dollars)	Normal Annualized Maintenance Costs <u>\$2.35MM</u> (include major-overhauls) _____ Major Overhaul Frequency <u>48,000</u> hours/approx <u>6</u> yrs, last year of occurrence <u>2012</u> , cost of last major overhaul – first major overhaul will occur November 2012 at an estimated cost of <u>\$7.5</u> MM	<input type="checkbox"/>
9	Fixed versus Variable O&M Costs Definition	For non-fuel costs please list the items considered as fixed cost versus variable O&M cost (please attach separate sheet if needed) Fixed O&M Costs: <u>Operator Fixed Fee Expenses, Permits and Regulatory Fees, Facilities Maintenance, Periodic and Required Maintenance, Sunk Costs (see attached sheet for details)</u> Variable O&M Costs: <u>Reimbursable Operator Expenses, Chemicals and Water Treatment, Consumables, Utilities/Commodities, Condition Based Maintenance items (see attached sheet for details)</u>	<input checked="" type="checkbox"/>
10	SMUD Energy Contact Person for Follow-up Questions	Name <u>Ross Gould, Superintendent, Thermal Generation</u> Phone Number <u>(916) 732-6584</u>	

¹ – Confidentiality request shall be limited to information that is not otherwise public information (for example, the unshaded cells). We have provided a shell you can use to complete the formal confidentiality letter request.

MM = Million

Contact Person: Will Walters @ 818-338-6757 or wwalters@aspeneq.com.

Cosumnes Power Plant: Fixed versus Variable O&M Costs Definition (non-fuel)

Examples of items considered fixed cost versus variable O&M cost include:

Fixed Costs

- Operator Fixed Expenses
 - Annual Base Fee
 - Monthly Availability Bonus
- Permits
 - Compliance Fees (CEC)
 - Title V Permit Fees (SMAQMD)
 - Wastewater Permit (SRCSD)
 - Storm Water permit (WQCB)
 - Hazardous Waste Management (Sac County EMD)
- Facilities
 - Site Office and Admin
 - Painting and preservation
 - Grounds keeping
 - Site Lease
 - Building maintenance
- Periodic & Required Maintenance
 - Control Systems
 - Instrument Calibrations
 - Fire/Security Systems
 - NERC Relay testing
 - CEMS, RATA, Source testing
 - Switchgear inspections
- Sunk Costs
 - Debt Service
 - Corporate Support
 - Engineering
 - Accounting/Treasury
 - Regulatory Compliance
 - Management

Variable O&M Costs

- Utilities/Commodities
 - Emission Credits (SOx, CO₂)
 - Water
 - Station Service
 - Waste Removal
- Consumables
 - Calibration gasses
 - Filters
 - Oils & greases
 - Fuel
 - Batteries, fittings, solvents, hardware, etc.
- Chemicals and Water Treatment
 - Turbine water wash solvent
 - HRSG treatment
 - NH₃ for SCR
 - CO₂ for fire suppression and hydrogen purging
 - Reagents
 - RO/Demineralization
 - Pretreatment (Perlite)
 - Cooling Tower
 - Zero Liquid Discharge
- Condition Based Maintenance
 - Turbine Inspections and overhauls
 - Pump and motor inspections
 - Corrective maintenance items
 - Replacement of wear parts, etc.