

Jeanine Townsend - further comments from the Sept 16 Hearing

From: Joanna Jensen
To: Jeanine Townsend
Date: Wednesday, September 30, 2009 10:30 AM
Subject: further comments from the Sept 16 Hearing
Attachments: Hunter-9-16-09-comments.PDF

The attached package was submitted by:

Laura Hunter on behalf of the Environmental Health Coalition.

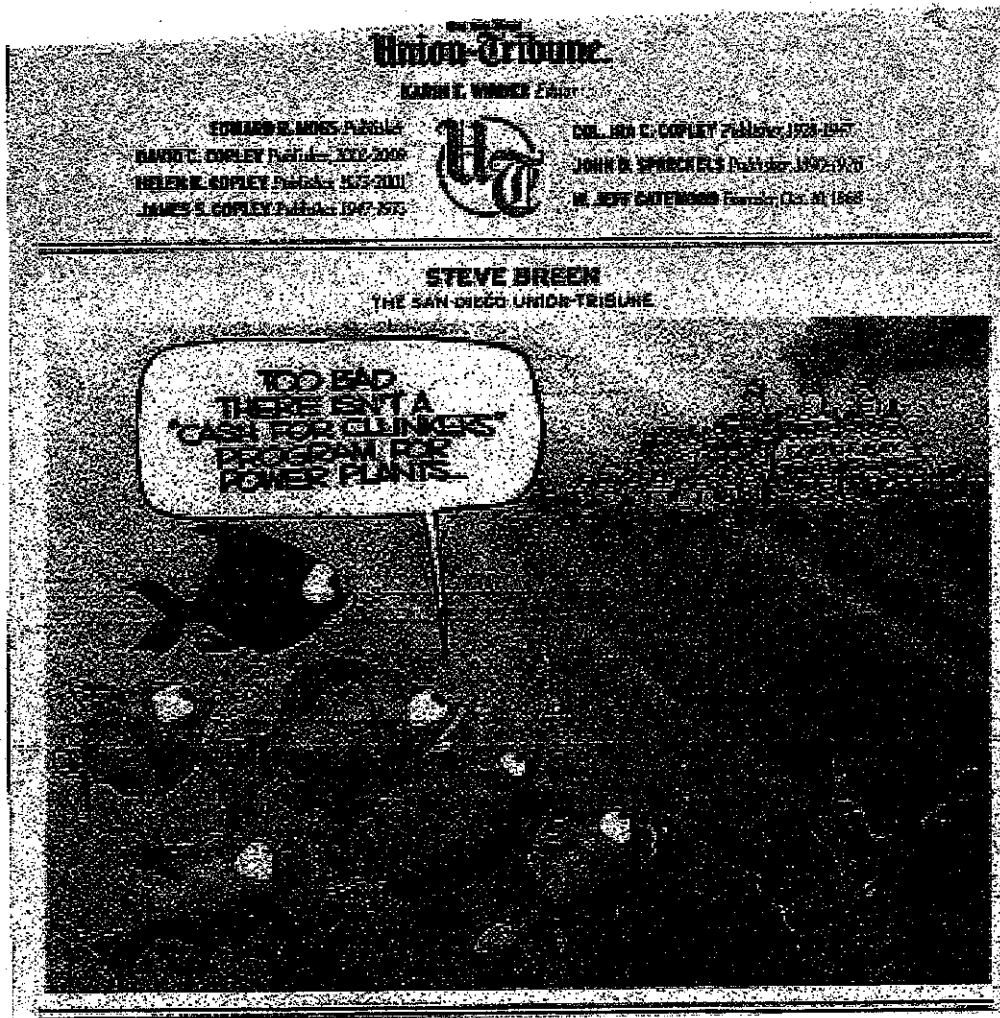
Some of the graphs are in color, but I can only scan in black and white. Let me know if you need the originals.

Thanks,

Joanna

Joanna Jensen
Division of Water Quality
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814
(916) 341-5582

**SUPPORTING DOCUMENTS FOR TESTIMONY
OF ENVIRONMENTAL HEALTH COALITION
SEPTEMBER 16, 2009
STATE WATER RESOURCES CONTROL BOARD
ONCE-THROUGH COOLING POLICY**



San Diego Union Tribune, Sunday, September 13, 2009

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SEP 16 2009
SWRCB EXECUTIVE

Environmental Health Coalition

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August 31, 2009

Chairman Richard Wright and Boardmembers
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

RE: Agenda items #7 and #12 on September 9 Board meeting related to NPDES Permit Application for Renewal of NPDES Waste Discharge Requirements for permit No. CA0001368, Order No. R9-2004-0154 for Dynegy South Bay, LLC- South Bay Power Plant

Dear Chairman Wright and Boardmembers:

Thank you for scheduling the issue of the South Bay Power Plant discharge permit for initial discussion and consideration as a priority at your September 9 meeting. We appreciate that you are taking another look at this important issue.

As this discussion proceeds, we ask that you keep foremost in your mind your responsibility to water quality and to preserving and protecting the beneficial uses of the Bay. There is prodigious evidence in the record that the use of the Bay water for cooling the power plant causes significant, negative, and unmitigable damage to water quality and to the marine life beneficial uses you are compelled to protect. That is the bottom-line and should be what drives your decisions and action. For this reason we are requesting that you direct your staff to initiate the hearing process for consideration of the subject application.

The evidence is clear—the discharge has major, negative impacts on water quality.

There is a significant amount of information that we are prepared to present at a hearing, but here are just a few, documented examples of the damage to the Bay that the Regional and State Boards have already established. The 2004 power plant permit Fact Sheet is a good record of the evidence and analysis of what is known about the power plant discharge. Some summary statements are below.

Findings have been included in the Order...that acknowledge that the SBPP's discharge of once-through cooling water to south San Diego Bay has adversely impacted Beneficial Uses...

--Fact Sheet at 3.

...Duke Energy should be required to take measures to abate the detrimental impacts of the SBPP discharge to the discharge channel....

--Fact Sheet at 3.

The NPDES permit language itself is also clear and detailed. Excerpted below are some of the exact findings of the adopted permit that detail the damage and degradation caused by the discharge.

Waste Discharge Impacts

14. The biotic communities in the immediate vicinity of the discharge point and in the discharge channel have been degraded by exposure to the once-through-cooling water discharge from the SBPP. The degradation to the biotic communities is due to several factors, including elevated temperature, flow volume, and flow velocity.

The degradation to biotic communities includes a lower diversity of benthic invertebrates residing in the near field stations of the discharge channel compared to those in reference stations outside the discharge channel. Furthermore, certain invertebrate species (including polychaete worms and amphipods) are largely absent in near field stations of the discharge channel. These species were found in abundant quantities in reference stations outside the discharge channel. The absence of these species from the discharge channel demonstrates that these species cannot survive under the warm thermal regimes of the discharge channel and were being adversely impacted.

In addition to a degradation of benthic invertebrates, up to 104 acres of critical eelgrass habitat has been precluded from the discharge channel and other areas of south San Diego Bay due to the redistribution of turbidity in the Bay from the SBPP discharge.

15. The Beneficial Uses (as defined by the *Basin Plan*) that may be impaired due to the effect of the SBPP discharge on water quality include: Estuarine Habitat; Marine Habitat; Wildlife Habitat; Preservation of Rare and Endangered Species; Preservation of Biological Habitats of Special Significance; and Shellfish Harvesting. It is evident that the impacts on Beneficial Uses due to the discharge of once-through-cooling water cannot be completely eliminated except through termination of the discharge. The adverse impacts are due to the individual and combined effects of the elevated temperature and the volume and velocity of the discharge.
20. The location, design, construction and capacity of the existing cooling water intake structures at SBPP fail to reflect the Best Technology Available (BTA) for minimizing adverse environmental impact as required by new regulations promulgated by U.S. EPA to implement Section 316(b) of the Clean Water Act at large existing electric generating plants (*Phase II rule*).

As indicated in the technical study report titled "*SBPP Cooling Water System Effects on San Diego Bay, Volume II: Compliance with Section 316(b) of the Clean Water Act for the South Bay Power Plant, August 2004*" submitted by Duke Energy, approximately 27 percent of the goby complex and 50 percent of the longjaw mudsucker larval source water populations are lost annually due to entrainment in the SBPP. Furthermore, approximately 13 percent of equivalent adult anchovy and 15 percent equivalent adult silverside fish populations are also lost annually due to larval entrainment losses. These losses of larval and adult fish populations due to entrainment in the SBPP constitute a significant adverse environmental impact.

Since 2004, the considerable analysis done by the State Board confirms these findings. The State Board's July 2009 Draft Substitute Environmental Document (DSED), in support of their Proposed Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, calls out South Bay specifically regarding damage from impingement and entrainment. It states:

"As an example of a conventional power plant, the South Bay Power Plant in San Diego, assuming full operation, has an estimated annual impingement of 390,000 fish, 93 percent of which were anchovies. Impingement of certain invertebrates was also assessed at this plant; an estimated 9,019 crustaceans (shrimps, lobsters, crabs) and cephalopods (octopus and squid) were impinged annually. Annual estimated entrainment for 2003 was 2.4 billion fish larvae. Fish species most represented in the entrainment studies were gobies (arrow, cheekspot, and shadow) anchovy, combtooth blennies, longjaw mudsuckers, and silversides." (emphasis added)

--DSED at 30.

Also in the DSED, Table 2: Estimated Annual Entrainment shows South Bay as having the third worst entrainment numbers in the state due to the high concentration of larval fish per cubic meter in the water.

Low capacity does not mean low impacts to marine life.

The operators may bring up the idea that they are current operating at low capacity and, therefore, are not damaging the bay. However, operating capacity utilization rate (CUR) is often not an indicator of damage to a marine environment. The DSED states,

"A facility's CUR is not necessarily indicative of the impact it may have on the aquatic environment since the potential for harm is not equally distributed throughout the year, particularly for entrainment; spawning typically peaks in spring and early summer throughout the state....Data show, however, that is it possible to operate less than 15 percent of the time and cause a greater impact than would be assumed if entrainment was uniform at all times."

-- DSED at 51

This is key for San Diego Bay given the extreme 'back bay' shallow water nature of where the water is taken from and discharged. Again the DSED shows the significant differences in the larval fish abundance between bay harbor environments and open ocean.

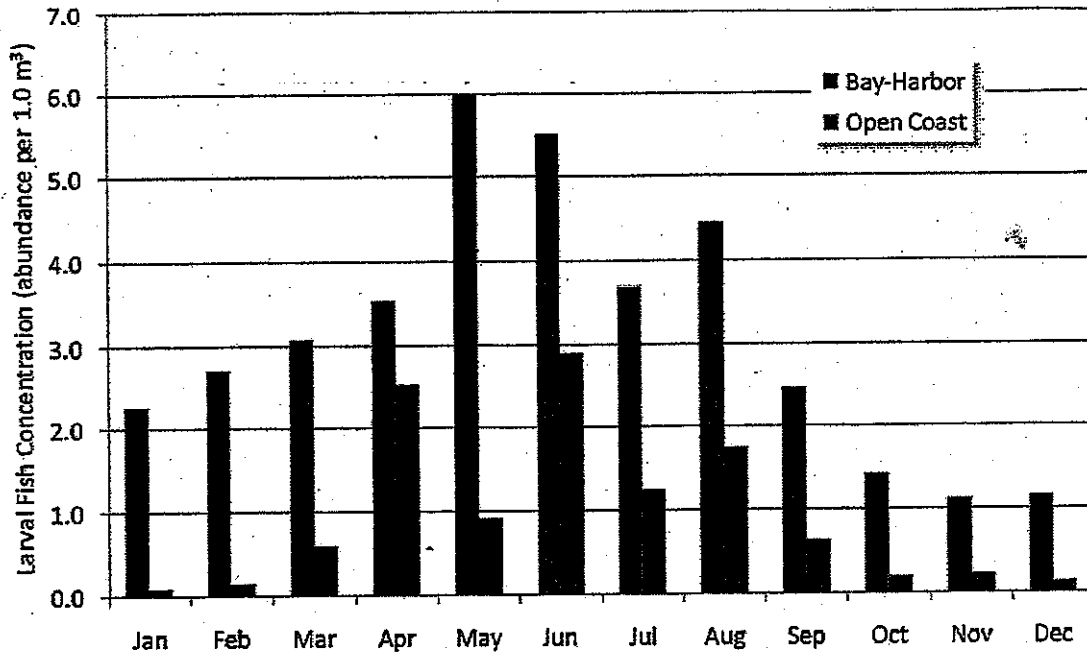


Figure 13: Larval Fish Concentrations at Southern OTC Facilities

--DSED at 52.

Once-through Cooling is not Best Available Technology.

The Riverkeeper II decision has clearly established that Once-through cooling (OTC) is not Best Available Technology (BAT). If the operators of the SBPP wish to continue to operate, they should be directed to bring you a plan and timeline for retrofit of their cooling system. One can expect, however, that they will not want to do that and will instead ask you not to force them to invest in the plant because it will not operate much longer. This was their strategy in 2004 and, unfortunately, we believed them. They were not required to invest in new cooling technology that would have protected the bay because they reported that the lifespan of the plant was five years.

We think this point must be underscored. Perhaps the most important statements in the record appear in the Fact Sheet where the feasibility of implementing alternative cooling systems that would protect the Bay was rejected:

...Furthermore, the report claimed that the cost/benefit analysis conducted for the wet/dry hybrid cooling towers indicated that the costs (amortized over the 5-year, expected, remaining life of the plant) were wholly disproportionate to the environmental benefits gained based on the entrainment/impingement data collected in 2003. (emphasis added)

--Fact Sheet at 32.

Fish protection improvements were avoided using the same argument.

Once again, a cost/benefit analysis conducted for these systems indication that the costs (amortized over the 5-year, expected, remaining life of the plant) were wholly disproportionate to the environmental benefits gained..... (emphasis added)

—Fact sheet at 33.

OTC is on the way Out.

A wide range of state agencies including the California Energy Commission, the Ocean Protection Council, and the State Water Resources Control Board have set a priority for the timely phase-out of once-through cooling systems at antiquated power plants. Ours is a power plant that no longer needs to discharge into the Bay. Several state agencies have weighed in on the problems with, and the need to end, OTC. A few examples,

California Energy Commission

- *"Once-through cooling contributes to the degradation of California's coastal waters."*

Ocean Protection Council

- *".... There are multiple types of undesirable and unacceptable environmental impacts associated with once-through cooling...."*

State Lands Commission

- *"...urges CEC and SWRCB to expeditiously develop and implement policies that eliminate the impacts of once-through cooling on the environment, from all new and existing power plants in California..."*

Yet, there is nothing in the application indicating that the operators plan to replace the cooling operations so that bay water is no longer used. We do not believe that a renewal based on conditions required in the current permit is, in any way, defensible today.

The 'need' for SBPP for energy is irrelevant and debatable.

We understand that a representative of the Independent Systems Operators (ISO) may be present at the meeting. The SBPP is currently operating under a reliability contract and a resource adequacy contract which expires on December 31, 2009. The issue of whether or not reliability contracts might be renewed with the California Independent Systems Operators (ISO) is irrelevant to your deliberations. There is no vested 'right' to an ISO contract, no provision for override of environmental standards, nor is continued damage to the Bay required to operate the power plant. It is merely an expensive proposition for Dynegy to retrofit the plant with an air-cooling or closed-cycle system.

While we do not believe that the potential of any reliability contract or designation is a relevant fact for your consideration, we have information regarding the 'need' for the plant in 2010. If you intend to consider this issue, it is another issue that would need discussion during a hearing process and is another reason to prioritize this issue for action. There are many options that the Regional Board can consider regarding the 'reliability' related issues. Once the Otay Mesa Energy Center is officially on-line (it is in testing phase now), any gaps or increases in demand in out years should be filled with new technology, not old.

Issues related to Staff Resources

The staff position is apparently to delay work on the renewal application until the State Board completes their Proposed *Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling*. Under different circumstances, there could be legitimate concern about using staff resources to work on cooling water intake requirements if the State Board Policy providing statewide direction will be issued shortly thereafter. However, in spite of their best intentions, significant State Board policy decisions have encountered exceedingly long delays. The status of the statewide sediment quality objectives is the most recent example of the length of these delays. We believe that the water quality and environmental concerns regarding this discharge over-ride any concerns about any duplication of effort, particularly given what we see as a pending State Board Policy with a somewhat tenuous completion date.

More importantly, the Board has authority under Water Code Section 13243 to prohibit a discharge. The magnitude of the impacts from this discharge over-rule consideration of available resources. The evidence supporting termination of this discharge is abundant and the authority is clear. There is no need to expend staff time determining best intake technology available for a discharge that is to be terminated. It does not take significant staff resources to write a letter to a discharger informing them of the impending termination of a discharge.

Best Professional Judgment is an acceptable standard for decision-making and your staff can draw on work that has already been done and what we already know. Your staff has already found, using Best Professional Judgment, that the only way to end the impacts to beneficial uses is to terminate the discharge. The basis for Regional Board Best Professional Judgment standard is well provided in the past permitting record and the supporting documents for the State Board's OTC-policy. We request you initiate the hearing process by scheduling a workshop to discuss the process and schedule leading to consideration of an order requiring that the discharge be terminated.

The Community considers this issue a high priority.

As you will hear on the 9th, this is a high priority for the community. You have received letters already from many in the South Bay elected delegation and the Chula Vista City Council. Letters and statements are already being issued and we have attached some of the early input we have received. We would like to reiterate our request that all future workshops and hearings on the power plant issue should be held in Chula Vista where the impacted community can participate in this important decision.

In 2004, the Regional Board and the community were promised that the lifespan of this plant was five years. Time is up. The Regional Board has the evidence, the discretion, the legal basis, and the responsibility to end this discharge. Only then, can San Diego Bay begin to heal. Only you can end this era of bay destruction once and for all. It's time to begin the hearing process.

Sincerely,

ORIGINAL SIGNED BY

Laura Hunter, Director
Clean Bay Campaign

cc.

Mr. John Robertus, Executive Officer
Mr. Vincente Rodriguez
Mayor and City Council, Chula Vista

BOB FILNER
51ST DISTRICT, CALIFORNIA

VETERANS' AFFAIRS COMMITTEE
CHAIRMAN

TRANSPORTATION AND INFRASTRUCTURE
COMMITTEE

AVIATION
HIGHWAY AND TRANSIT
WATER RESOURCES AND ENVIRONMENT



CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES

July 15, 2009

John H. Robertus
Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, # 100
San Diego, CA 92123

Dear John:

We are writing on a matter of significant importance to residents in the South County. As the members of the elected delegation representing South County communities, we are writing to express our concerns and opposition to the proposed five-year extension of the South Bay Power Plant (SBPP) discharge permit into the San Diego Bay.

When the San Diego Regional Water Quality Control Board (Board) renewed the water discharge permit in 2004, we understood that this would be the last time it would grant a renewal. Therefore, we did not object to the permit application.

In 2004, the Board granted the operators a waste discharge permit, which included very lenient conditions that allowed the power plant to continue to operate. It did not require mitigation of known impacts, it did not require Best Available Technology for cooling, and it even allowed the operators three years to come into compliance with the copper standards. With the latest application to renew the water discharge permit, the South County faces five more years of degradation to our Bay, negative impacts to the environmental health of our communities, and continued restrictions to economic development on the bayfront.

The Board's regulations require that permitted water discharge complies with the law and that beneficial uses of San Diego Bay not be unreasonably affected. In the 2004 permit fact sheet, discharge from SBPP degraded the bay's beneficial uses, its intake and discharge structures failed to reflect best technology available, and mitigation for the damage deemed necessary.

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John H. Robertus
July 15, 2009
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Since 2004, there have been several legislative and legal decisions made that have implications to any future operation of the power plant's cooling system. In considering the 2009 permit renewal, it should be noted that the operator has yet to address these issues, and has not included proposals in their 2009 application to eliminate the water cooling impacts to San Diego Bay such as changes to include best technology, or commitment to a date to cease operation of the power plant.

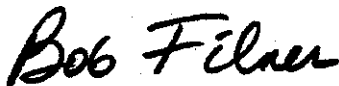
While considering any economic impacts of granting this permit, please note that the presence of the power plant has undermined decades of effort to redevelop the Chula Vista Bayfront with quality development. The original agreement tied the purchase of SBPP to a ten year lease term and the repayment of bonds for purchase of the SBPP.

It was widely understood that the ten year timeframe would be sufficient enough for the Otay Mesa Generating Station located in Otay Mesa, San Diego to be permitted and constructed. The bonds are paid and the new plant should be on-line during the fall of this year.

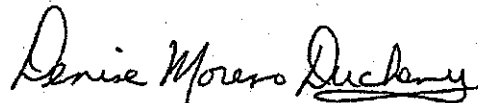
The lease for the power plant site is set to expire in November 2009 with the discharge permit set to expire the same month. We urge the San Diego Regional Water Quality Control Board to reject this permit application for another five-year renewal.

Thank you for your attention to this matter.

Sincerely,



Bob Filner
U.S. Congressman, 51st District



Denise Moreno Ducheny
State Senator, 40th District

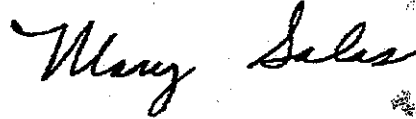
John H. Robertus

July 15, 2009

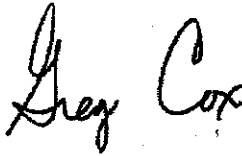
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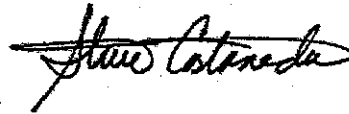
Marty Block
State Assemblymember 78th District



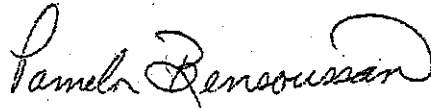
Mary Salas
State Assemblymember, 79th District



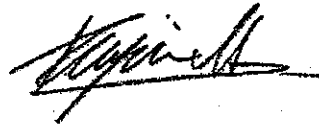
Greg Cox
San Diego County Supervisor, District 1



Steve Castaneda
Chula Vista City Councilmember



Pamela Bensoussan
Chula Vista City Councilmember



Ben Hueso
San Diego City Councilmember, District 8

BF/jg
2512915



CITY OF
CHULA VISTA
OFFICE OF THE MAYOR

August 14, 2009

Richard Wright, Chair
California Region Water Quality Control Board
San Diego - Region 9
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

RE: NPDES Permit Application for Renewal of NPDES Waste Discharge Requirements
For Order No. R9-2004 - 0154, NPDES No. CA0001368
Dynegy South, LLC, South Bay Power Plant Discharge to San Diego Bay

Dear Chair Wright and Board Members,

The Chula Vista City Council is unanimous in its support of the July 15, 2009, letter (Attached) to John Robertus and in its expectation that the discharge permit for the South Bay Power Plant (SBPP) not be renewed or extended. The residents of Chula Vista have shouldered the negative environmental and economic impacts of this regional facility for almost five decades. The plant uses an old technology that constrains public access and economic development plans for 135 acres of bayfront property, and inhibits the restoration and protection of adjacent habitat. The City requests that the Agency reconsider its position and act promptly on neither renewing nor extending this permit.

We are aware that public agencies are facing limited resources, including our own. However, this is a once-in-five-years process that we all had the obligation to plan for. The SBPP is one of the two largest facilities in the region and according to the State Water Resources Board, the most recent study indicates that SBPP uses up to 600,000,000 gallons of bay water per day, kills approximately 390,000 fish through impingement and 2.4 billion larvae through entrainment annually. The RWQCB general statement says, "The primary duty of the Regional Board is to protect the quality of the waters within the Region for all beneficial uses." We ask the RWCQB to make the process for denial of this permit a priority. Failure to process the permit within the five year permit cycle would inappropriately abdicate local authority for one of the largest water bodies and significant natural resources in the region.

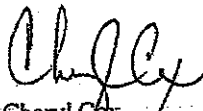
Five years ago, as a responsible partner Duke Energy included the City in the process at the very early stages of permit application development. As stated in our letter to Mr. Robertus, the City did not intervene in the RWQCB process and supported Duke and the Port in minimizing impacts and costs to SBPP operation by phasing in minimal standards. That collaboration was based on the founding principle that SBPP would not operate beyond the current lease term, would be decommissioned by February 2010, and would therefore not need or seek an extended permit from the RWQCB. Dynegy's current permit request represents a failure to meet that commitment.

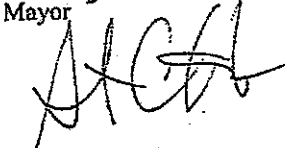
August 14, 2009
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Richard Wright, Chair

The bay and surrounding habitat will not begin to fully restore itself from 50 years of this facility's impacts until the plant ceases drawing and discharging exceptionally large volumes of water through this closed water body. The community will not realize the financial means to restore and preserve that habitat, provide public access and the economic opportunities the bayfront represents until the SBPP is decommissioned and dismantled, and the adjacent marine habitat has the resources and time to be restored.


Please help us convey in the strongest manner to the SBPP operator and the other state regulatory agencies that 1950s technology and discharge practices of the past century do not meet this region's water quality standards for this unique watershed today. We ask that you provide an open, transparent and inclusive opportunity for South Bay residents to hear from all parties and review the data by conducting these meetings in Chula Vista. Thank you for your consideration.

Respectfully,


Cheryl Cox
Mayor


Steve Castaneda
Councilmember


Rudy Ramirez
Deputy Mayor


Pamela Bensoussan
Councilmember

Attached: Letter to John H. Robertus

cc: David King, Vice Chair
Eric Anderson, Boardmember
Wayne Rayfield, Boardmember
Gary Thompson, Boardmember
Jim Sandoval, City Manager, Chula Vista

John Robertus, Executive Officer
George Loveland, Boardmember
Grant Destache, Board member
Marc Luker, Boardmember

IMPLEMENTATION OF ONCE-THROUGH COOLING MITIGATION THROUGH ENERGY INFRASTRUCTURE PLANNING AND PROCUREMENT

Michael R. Jaske

*Electricity Supply Analysis Division
California Energy Commission*

Dennis C. Peters

*California Independent System Operator
Corporation*

Robert L. Strauss

*Energy Division
California Public Utilities Commission*

DISCLAIMER

This paper was prepared by staff of the California Energy Commission, California Public Utilities Commission, and California Independent System Operator Corporation. It does not necessarily represent the views of these entities or the State of California. The Energy Commission, the State of California, its employees, contractors and subcontractors make no warrant, express or implied, and assume no legal liability for the information in this paper; nor does any party represent that the uses of this information will not infringe upon privately owned rights. This paper has not been approved or disapproved by the California Energy Commission nor has the California Energy Commission passed upon the accuracy or adequacy of the information in this paper. This paper has not been approved or disapproved by the full Commission.

DRAFT JOINT AGENCY STAFF PAPER

July 2009
CEC-200-2009-013-SD



California ISO
Your Link to Power



Arnold Schwarzenegger, Governor

Draft Infrastructure Replacement Milestones and Compliance Dates for Existing Power Plants in California Using Once-Through Cooling

Region (Balancing Authority)	Existing Facility Name	Infrastructure Replacement Milestones							Unspecified Replacement Infrastructure Operational ⁸
		CAISO Enhanced LCR Study ⁵	CAISO-CPUC-CEC Infrastructure Replacement Plan ⁶	CPUC LTPP Approval ⁴	Gen Project Approval ⁴	CAISO Annual Transmission Plan ⁵	CPUC Transmission Permitting ⁷	Known Replacement Infrastructure Operational ⁸	
San Diego	El Segundo Generating Station	Not required ¹⁹	Pre-Plan ²⁰	Complete	Complete	Gen solution	N/A	Q3 2010	N/A
	South Bay Power Plant (partial capacity)	Not required ¹⁹	Pre-Plan	Complete	Complete	Gen solution	N/A	Q2 2009	N/A
	South Bay Power Plant (remaining units)	Not required ¹⁹	Pre-Plan	Trans solution	Trans solution	Complete	Complete	Q2 2009	N/A
	Encina Power Plant	Q4 2009	Q1 2010	2011	2013	2013	2013	N/A	2017
Bay Area	Potrero Power Plant (Unit 3) ¹³	Not required ¹⁹	Pre-Plan ²⁰	Trans solution	Trans solution	Complete	Complete	Q1 2010	N/A
	Contra Costa Power Plant (1 of 2 units) ¹⁴	Not required ¹⁹	Pre-Plan ²⁰	Complete	Complete	Gen solution	N/A	Q2 2009	N/A
	Contra Costa Power Plant (second unit)	Q4 2009	Q1 2010	2011	2013	2011	2015	N/A	2017
Los Angeles Basin (CAISO)	El Segundo Generating Station	Not required ¹⁹	Pre-Plan	Complete	Complete	N/A	N/A	N/A	N/A
	Huntington Beach Generating Station	Not required ¹⁹	Pre-Plan	Complete	Complete	N/A	N/A	N/A	N/A
	Redondo Generating Station	Not required ¹⁹	Pre-Plan	Complete	Complete	N/A	N/A	N/A	N/A
	Alamitos Generating Station	Not required ¹⁹	Pre-Plan	Complete	Complete	N/A	N/A	N/A	N/A
	Haynes Generating Station ¹⁶	Not required ¹⁹	Pre-Plan	Complete	Complete	N/A	N/A	N/A	N/A
	Harbor Generating Station ^{15,16}	Not required ¹⁹	Pre-Plan	Complete	Complete	N/A	N/A	N/A	N/A
Los Angeles Basin (LADWP)	Scattergood Generating Station ¹⁵	Not required ¹⁹	Pre-Plan	Complete	Complete	N/A	N/A	N/A	N/A
	Scattergood Generating Station ¹⁵	Not required ¹⁹	Pre-Plan	Complete	Complete	N/A	N/A	N/A	N/A
Note: The California ISO balancing authority or the CPUC jurisdiction. The Energy Commission is conferring with LADWP to understand in-basin capacity requirements and processes for accomplishing OTC mitigation.									

¹ These infrastructure milestones assume no litigation about facility permits following appropriate agency approvals.

¹¹ California Independent System Operator Corporation (The California ISO) would conduct an enhanced Local Capacity Requirement (LCR) study identifying the impacts of specific OTC retirements or transmission developments on the local area's LCR projections 10 years out. The California ISO will use assumptions about load and generation developed jointly with the California Energy Commission (Energy Commission) and the California Public Utilities Commission (CPUC).

¹² The Infrastructure Replacement Plan developed jointly and updated by the California ISO, Energy Commission, and the CPUC would identify the complete set of infrastructure needed to make OTC plants/units redundant for grid reliability. It would advise the SWRCB about the reliability designations of specific power plants.

¹³ CPUC would modify its Long-Term Procurement Plan (LTPP) proceeding and procurement processes to require the investor-owned utilities (IOUs) to assess replacement infrastructure needs and conduct targeted request for offers (RFOs) to acquire replacement or repowered generation capacity. CPUC also has authority to approve cost-based contacts under AB 1576.

¹⁴ CPUC has authority to order the IOUs to procure new (or repowered) fossil generation for system reliability in the LTPP proceeding. LTPP proceedings are conducted on a biennial cycle and plans are normally approved in odd-numbered years.

¹⁵ Once authorized to procure by a CPUC LTPP decision, it takes 18 months for the IOUs to issue an RFO for generation (new or repowered), sign contracts and submit applications to the CPUC for approval. Approval by the CPUC takes 9 months. If the contract involves a facility already licensed by the Energy Commission, then financing and construction can begin. Generation permitting for thermal technologies >50 MW in capacity is under Energy Commission authority, and may take place before, after or during the CPUC contract approval process. The Warren-Alquist Act authorizes the Energy Commission to license certain categories of power plants and related structures. The Energy Commission's siting process has been determined to be a certified regulatory program under the California Environmental Quality Act (CEQA) and the functional equivalent of preparing environmental impact reports (EIRs). The Energy Commission is the lead agency and consults with other relevant agencies. The standard licensing process is normally conducted in 12 months, but streamlining of the permitting process may be an option so multiple facilities can be considered as a package (planning level EIR). Reviews should be somewhat faster because impacts to water resources are by definition minimized; impacts to the grid reliability are already considered and mitigated; and conformity to state laws and regulation has been considered under the Plan.

¹⁶ Transmission permitting is under CPUC authority. Proposed transmission facilities to meet needs identified in the California ISO Annual Transmission Plan to replace OTC plants/units would be brought to the CPUC for approval.

¹⁷ Transmission solutions (upgrade and/or new addition) that would make specified OTC system redundant would be analyzed in the California ISO Annual Transmission Plan. The California ISO will consider SWRCB directives and schedules limiting or canceling water permits required to operate OTC plants/units in the 2011 and subsequent annual Transmission Planning Process (TPP). The California ISO will conduct analysis as part of its TPP reflecting projected OTC plant/unit retirements as a result of SWRCB directives and schedules, which shall be incorporated in to the California ISO's annual Transmission Plan that serves as the basis for further transmission upgrades or additions.

¹⁸ These compliance dates may change subject to the California ISO-Energy Commission-CPUC Infrastructure Replacement Plan produced in Q1 2010 and updated periodically. All dates assume a generation solution that requires an Energy Commission permit. If a permit has been acquired prior to CPUC contract approval, then an earlier on line date is possible. If transmission solutions are selected, then longer time lines would be expected.

¹⁹ Humboldt Repower generation project is approved by the CPUC and expected operational by Q3 2010. This new infrastructure will eliminate OTC at the Humboldt Power Plant.

²⁰ Otay Mesa Power Plant is in construction and expected operational by Q4 2009. This new infrastructure is expected to displace a portion of the need for the capacity of the South Bay Power Plant.

SAN DIEGO 2010 LOAD & RESOURCE PROFILE

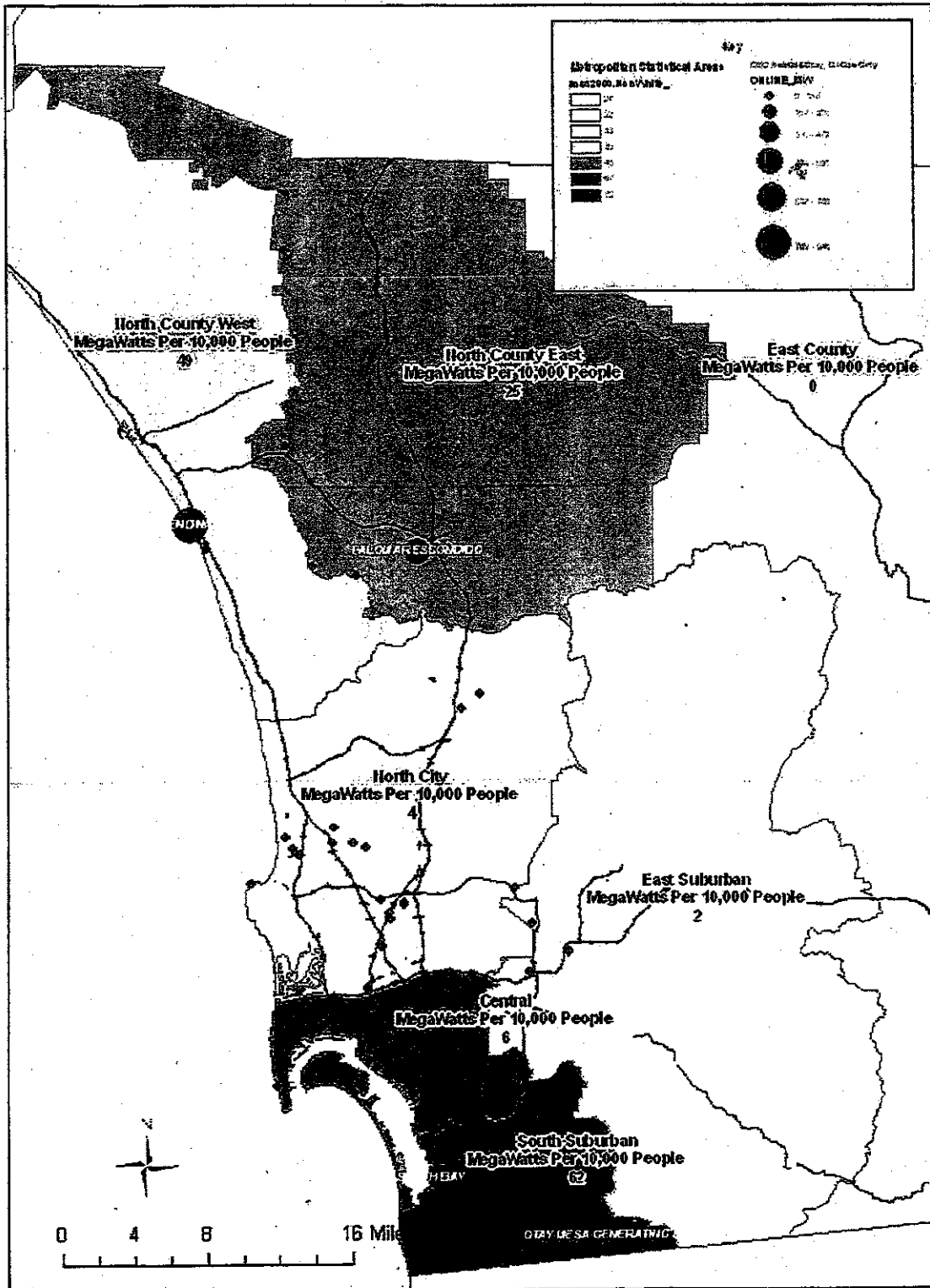
2010 Load	Import Capability (L-1; with SWPL out)	Firm Capacity (in Service)	DR	Non Firm Capacity (573 Otay Mesa and 94 Pala)	Generation contingency (G-1=Otay or G-1=Palomar)	LCR Need (Load - Imports + G-1)	Gen. surplus (Total gen. + CPUC-approved DR - LCR need)	Min. South Bay Gen (708-gen surplus)
5134	2500	2977	85	0	565 firm	3199	-137	708
				573 (w Otay Mesa)	573 w non-firm	3207	428	280
				667 (w Otay Mesa & Pala)	573 w non-firm	3207	522	186

1. The South Bay resources can not retire entirely in 2010.
2. The ISO needs to ensure enough generation operates reliably in 2010 and through the next several years before any more South Bay units retire. There is about 63 MW/year load growth in San Diego. As such the required minimum South Bay generation by 2012 is 186 + 126 or **312 MW**.
3. To ensure San Diego reliability (2010-2012) ISO can release South Bay Units 3 & 4 (175 MW and 222 MW, respectively) but will need units 1 & 2 (146 MW & 150 MW) + CT (15 MW) totaling **311 MW**.
4. Otay Mesa is in testing with expected on line date of 09/09.
5. Pala (Orange Grove) is anticipated to be on line by 02/10.
6. The rest of the South Bay units can retire AFTER either Sunrise becomes operational (currently the end of 2012) or additional resources (not listed above) become operational in an amount sufficient to assure San Diego grid reliability for the foreseeable future (enough to achieve Sunrise's in-service date)

FACTS FOR 8/27/09 MEETING RE: SOUTH BAY RMR CONTRACT

- **WHAT'S "RMR"?** -- "Reliability Must Run" (RMR) contracts are one-year agreements between the ISO and power producers for a cost-based power contract to ensure that local area power needs and reliability criteria are met. Over the past several years, the need for RMR has been drastically reduced due to the introduction of "Local Capacity Requirements" (LCRs) put in place by the ISO and the PUC. However, a relatively small number of units still need the RMR cost-based contract with the ISO to ensure local reliability and protect against market power.
- **WHAT'S THE RMR MATH FOR 2010?** -- The South Bay power plant, currently owned by the Port of San Diego and operated by Dynegy, has been under RMR contract for several years. The math for 2010 shows that IF new generation comes on line and performs appropriately by early 2010 (Otay Mesa at least and possibly Pala), then up to two of the South Bay units can be released from RMR. Under this best case scenario, the ISO proposes eliminating the largest two units (3 & 4) to maximize both cost savings to ratepayers and present the best transmission maintenance options. If Otay Mesa and Pala fail to materialize, however, the San Diego area is short approximately 140 MW and, under both NERC and ISO reliability criteria, cannot release any South Bay units from RMR.
- **WHAT IS THE RELIABILITY CRITERIA?** -- NERC and ISO both mandate "G1 L1" criteria which essentially require planning for outages of both the biggest line and the biggest source of generation. The LCR criteria are also clearly described in the ISO Tariff section 40.3.1.2: <http://www.caiso.com/240d/240dbdc929640.pdf>. In San Diego for 2010 that amounts to loss of SWPL (which then leaves just 2500 MW of remaining import capacity) and loss of either Otay Mesa (573 MW – if operational) or Palomar (565 MW).
- **WHAT WILL IT TAKE TO RELEASE ALL THE SOUTH BAY UNITS?** Otay Mesa and Pala together gets over half way there with release of the 2 largest units (3 & 4 = 397 MW). The remaining 2 units (+ a 15 MW peaker needed for black-start capability) = to 311 MW. Releasing these units will require new generation (not mentioned above) to become operational, new local demand response (certified by the CPUC) and/or Sunrise TX coming on line. [The December 2012 online date for Sunrise is jeopardized due to litigation.]
- **WHAT'S THE DIFFERENCE BETWEEN FIRM AND NON-FIRM GENERATION?** -- Firm generation is on line and running today. Non-firm generation is proposed to be operational any time between the current date and the start of next summer's season (June 1, 2010).

MegaWatts Per 10,000 People, by Metropolitan Statistical Area Natural Gas & Landfill Gas Facilities Only



Sources: CEC (Power plants)
 SANDAG: MSA map layer

Feature edit map.mxd
 Environmental Health Coalition, 2008.



Power Plants

[View map](#)



Otay Mesa Project

Otay Mesa Energy Center is a 596-megawatt facility near San Diego, Calif. that will supply San Diego Gas & Electric ("SDG&E") electricity in connection with a ten-year tolling agreement. Under the terms of the agreement, SDG&E will have the ability to dispatch power from the Otay Mesa plant to serve its energy customers, and the utility will supply natural gas to fuel the power plant.

As one of California's largest, most environmentally responsible power producers, Calpine is dedicated to developing clean, reliable and cost-effective energy solutions for its customers. The Otay Mesa Energy Center will generate a low-carbon energy resource - demonstrating that Calpine's customers, California and the environment can benefit from the continued development of new power generation facilities like the Otay Mesa Energy Center.

Calpine Construction Management Company, Inc. will be responsible for overseeing all aspects of construction for the plant, including management of the project's general contractor, a joint venture between ARB, Inc. and Barton Malow Company.

Calpine will operate and maintain the plant through our subsidiary. Comparable to the majority of Calpine's energy centers, the Otay Mesa Energy Center will use a combined-cycle design that will enable it to generate electricity up to 40 percent more efficiently than traditional natural gas-fueled facilities. The project also will incorporate best available emissions control technology.

Location: San Diego, CA

Commercial Operation Date: January 1965

Baseload Capacity: 510 megawatts

Baseload Capacity with Peaking: 596 megawatts

Ownership: Calpine 100%

Technology: Natural gas-fired, combined-cycle

Turbines: GE combustion and Siemens
Westinghouse steam

NERC Region: WECC

BOB FILNER
5TH DISTRICT, CALIFORNIA

VETERANS' AFFAIRS COMMITTEE
CHAIRMAN

TRANSPORTATION AND INFRASTRUCTURE
COMMITTEE

AVIATION
HIGHWAY AND TRANSIT
WATER RESOURCES AND ENVIRONMENT



CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES

May 6, 2009

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website: www.house.gov/filner

Louise McCarren
Chief Executive Officer
Western Electricity Coordinating Council (WECC)
615 Arapeen Dr, Suite 210
Salt Lake City, UT 84108

Dear Louise:

I am writing to request that you review the California Independent System Operator (CAISO) proposal to modify the units currently identified in the G-1 in the San Diego Gas & Electric (SDG&E) service territory. The 541 MW Palomar Energy and the 561 MW Otay Mesa combined cycle projects have the capacity to generate approximately 350 MW during a forced outage of the steam turbine-generator, and taking them completely offline would undercount the available power generation resources in the San Diego area.

These energy units have the ability to operate in simple cycle mode during a forced outage of the steam turbine-generator. Currently, the local capacity calculated by CAISO assumes that there is 0 MW available to the grid under this operating condition, but in fact, it can add about 232 MW to local power generating reliability. If only a partial outage occurs, the 541 MW Palomar Energy or at the 561 MW Otay Mesa, the G-1 unit would only loss of the 329 MW Unit 5 at the Encina Power Plant in Carlsbad, California.

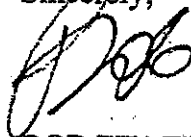
During Phase I of the Sunrise Powerlink, SDG&E informed the California Public Utilities Commission (CPUC) that both Palomar and Otay Mesa combined cycle plants are designed to continue operation under all foreseeable conditions, including forced outage, as they are designed to vent steam through the heat recovery generators. Now, SDG&E has petitioned the CAISO to remove the Palomar and Otay Mesa projects, which if accepted, would decrease the reliability if there is a peak demand situation.

Recognition by CAISO that both Palomar and Otay Mesa combined cycle plants

Louise McCarren
May 6, 2009
Page 2

are designed to allow continued operation of the gas turbines, even if a steam turbine failure was to occur, would be an important step toward retiring old, inefficient, and polluting steam boiler plants in the State.

Sincerely,



BOB FILNER
Member of Congress

BF/jg
2511841

Environmental Health Coalition

COALICION de SALUD AMBIENTAL

401 Mile of Cars Way, Suite 310 ♦ National City, CA 91950 ♦ (619) 474-0220 ♦ FAX: (619) 474-1210
ehc@environmentalhealth.org ♦ www.environmentalhealth.org

July 21, 2009

Amended August 21, 2009

Mr. Gary DeShazo
Director of Regional Transmission North
California Independent Systems Operators
P.O. Box 639014
Folsom, CA 95763-9014

RE: Environmental Health Coalition request that CAISO remove South Bay Power Plant from consideration for RMR designation for 2010

Dear Mr. DeShazo:

Environmental Health Coalition (EHC), residents, businesses, and local elected leaders in South Bay communities are united by our desire to remove the South Bay Power Plant (SBPP) from the Chula Vista Bayfront by 2010. As you know, once the lease with the Port District expires in November of this year, the only reason the power plant will continue to operate is if the CAISO renews the Reliability-Must Run (RMR) designation for part or all of the plant for 2010. We expect that your analysis for granting reliability designations and contracts for 2010 has already begun.

We are writing today to ask, in strongest possible terms, that you remove the South Bay Power Plant from consideration for a 2010 RMR contract for the health and well-being of our region.

South Bay Power Plant is a significant polluter of our air and water.

The SBPP is the largest single polluter of Chula Vista and San Diego Bay. Its use of once-through cooling waters kills up to 50% of some species in the Bay every year. It is emits up to 1,000,000 tons of toxic and greenhouse gases annually. In the recent past, permitted limits are 650 tons of NO_x which corresponds to 600 tons of PM annually. It pollutes the air of local elementary schools and homes and has fundamentally altered and degraded the marine ecosystem of San Diego Bay.

The SBPP water discharge permit expires in November of this year and operators face extreme opposition in their efforts to renew the permit. A letter signed by long list of bipartisan federal, state, and local elected officials opposing the permit is attached, evidence of the mounting the opposition to a renewal.

South Bay Power Plant is an economic blight on our Bayfront.

The presence of the SBPP has frustrated quality development on the Chula Vista Bayfront for decades. A 2006 letter from Gaylord Development, citing concerns about development of a \$1 billion project on the Bayfront, notably cautioned the city about the, *"incompatibility of our plans with the continued existence of the power plant in its current location..."* Gaylord has since withdrawn their project. Other attempts to site high-quality development on the Bayfront have failed with the presence of the power plant often cited as the reason the area is undesirable for development.

Once Otay Mesa Generating Station is operational the SBPP is not needed.

We have attached an analysis (conducted with information from last year) of the reliability situation, *Filling the Reliability Gap: An Analysis of the San Diego Area Reliability Requirement and Proposed Measures Sufficient to Remove Reliance on the South Bay Power Plant after 2009*. This analysis was based on CAISO, SDG&E and other agency filings in the public domain. It demonstrates that (assuming the Otay Mesa combined cycle plant is placed in service in 2009) incremental resources in the San Diego area can be developed in quantities sufficient to address any reliability deficiencies. This would allow the CAISO to refrain from placing the South Bay power plant under an RMR contract (or equivalent contract) in 2010.

A comprehensive review of the accounting of all resources in the region demonstrates that the San Diego area reliability deficiencies that need to be filled are 72 MW in 2010 to 93 MW in 2012. These projections are **excluding** SBPP and excluding new high voltage transmission line addition such as, Sunrise Powerlink or TE-VS. This gap is easily filled with recently permitted new peaking resources and reasonable changes (that better reflect reality) to the way that CAISO determines RMR need. These changes include G-1 calculation and inclusion of approved demand response programs in the calculation per your own policy.

More realistic calculation of emergency conditions adds 232 MW to the region.

CAISO currently lists the Palomar Energy Center combined cycle plant as the largest generator in the region for the purposes of the worst-case reliability calculation (G-1, N-1 scenario). However, both the 541 Mw Palomar and the 561 Mw Otay Mesa combined cycle plant are specifically designed to operate in simple-cycle mode with the steam turbine generator in forced outage meaning that, if necessary, the turbines can operate independently.

While operating Palomar Energy or Otay Mesa in simple-cycle mode would be inefficient, it could and would be done in special circumstances like a peak load G-1, N-1 situation where every available megawatt would be necessary to prevent a brownout/blackout situation in SDG&E service territory. The ability of the Palomar Energy and Otay Mesa plants to operate in simple-cycle mode give these plants a minimum "emergency generator" power output capability that must be included in CAISO reliability calculations for the SDG&E service territory.

If CALISO's calculations were changed to more accurately reflect real conditions on the ground, an additional 212-232 MW would be added to the G-1, N-1 scenario calculation immediately—easily filling any reliability gap.

CAISO should reflect approved demand response programs in its reliability calculation.

Regarding the inclusion of demand response programs in reliability calculations, the CAISO has stated that approved demand response programs can be used to meet identified reliability requirements. Therefore, it is appropriate for the CAISO to reduce its reliability deficiency projections as programs come on-line. This would reduce demand by 118 MW in 2010 to 234 MW in 2012.

Future generation has been approved, others will receive contracts soon.

In the past year, over 140 MW of new peaking power have been approved in North County by the California Energy Commission. CAISO representatives have stated under oath that replacement energy for SBPP can be located anywhere in the county. Recently, SDG&E held a bid conference for a new generation RFO which will likely result in new power generation in the region. Also, several sites have been identified by the city of Chula Vista where replacement generation could be acceptable. SDG&E is on record in their proposed Long-Term Resource Plan that another baseload plant (in addition to Otay Mesa Generating Station) is not needed in the South Bay.

CEC 'heavy summer' peak load projections for SDG&E territory in 2010 and 2015 are lower than earlier ISO and SDG&E forecasts.

The findings of the June, 2009 California Energy Commission (CEC) 2010-2020 Electricity Demand dramatically lowers projections from the CAISO earlier estimates and should be reflected in an updated reliability assessment for the San Diego area. The CAISO's 2006 original estimates were of 4,906 MW in 2010 and a 2015 heavy summer peak of 5,376 MW. However, the SDG&E heavy summer (1 in 10) peak load projected by the CEC in the June 2009 forecast for 2010 is 4,600 MW and for 2015 it is 4,900 MW. According to the most recent CEC forecast, the SDG&E service area will not reach the earlier ISO or SDG&E projections for at least an additional 5 years. (CEC graphic attached)

South Bay has suffered from the impacts of the SBPP long enough. This plant is no longer necessary and its effect not longer supportable. We strongly urge you to deny future RMR contacts with the SBPP. We respectfully request an opportunity to meet with you and your staff to discuss the issues outlined in this letter. We look forward to meeting with you.

Our health is in your hands.

Sincerely,

Laura Hunter, Campaign Director
Environmental Health Coalition

cc.

Congressman Bob Filner

Senator Denise Ducheny

Assemblywoman Mary Salas

Assemblyman Marty Block

Mayor and City Council of Chula Vista

San Diego Council President Ben Hueso

Councilwoman Patricia McCoy

Attchs.

APPENDIX B
Enclosure 1

**Dynegy South Bay
Revenue for Each RMR Unit
Contract Year 2008**

	Percentage (See Note)	Capital Component AFRR	Schedule F AFRR	Unit No. 4 SCR Revenue	Total Revenue
Unit No. 1	23.4%	\$ 2,170,686	\$ 4,891,776		\$ 7,071,465
Unit No. 2	24.2%	2,254,206	5,050,016		7,315,226
Unit No. 3	28.1%	2,817,400	5,874,312		8,491,802
Unit No. 4	22.0%	2,040,281	4,568,108	\$ 2,304,856	6,953,245
CT	2.3%	214,243	480,816		695,059
Total	100.0%	\$ 8,314,912	\$ 20,865,027	\$ 2,304,856	\$ 32,524,795

NOTE: Under the Settlement Agreement reached in Docket ER08-115-000, AFRR (including the Capital Component AFRR) not assign to a specific unit will be allocated in accordance with the above percentages for each year that all South Bay units are designated. All South Bay Units are designated RMR units for Contract Year 2008.

**CONTRACT YEAR 2008
FOR COMPARISON PURPOSES**

	Percentage (See Note)	Capital Component AFRR	Schedule F AFRR	Unit No. 4 SCR Revenue	Total Revenue
Unit No. 1	23.4%	\$ 2,378,171	\$ 4,945,998		\$ 7,324,169
Unit No. 2	24.2%	2,459,478	5,115,062		7,574,568
Unit No. 3	28.1%	2,665,838	5,938,425		8,795,263
Unit No. 4	22.0%	2,235,887	4,850,084	\$ 2,475,154	9,361,126
CT	2.3%	233,752	485,145		718,897
Total	100.0%	\$ 10,183,124	\$ 21,136,746	\$ 2,647,777	\$ 33,775,023
Change		\$ (848,212)	\$ (231,718)	\$ (342,919)	\$ (1,230,226)

Or, about \$32.5 million for the year. Down from \$33.8 million last year. The document is not easy to read, but appears to include charges for start-up, for the expected hours it will run, for the hours each unit will be available, and capital costs for each unit.

S:\1 EHC SharedFiles\ENERGY TEAM\SOUTH BAY POWER
PLANT\20081104-0132(20020815).pdf