



March 3, 2010

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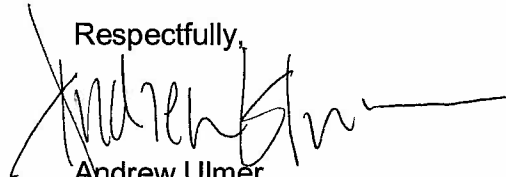
Mr. David Gibson  
Executive Officer,  
c/o Brian Kelley  
California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, California 92123-4340.

**Re: In the Matter of Dynegy South Bay, LLC  
SBPP Issue Submittal**

Dear Mr. Gibson,

Consistent with timeframe established by the Notice of Public Hearing of the California Regional Water Quality Control Board for the San Diego Region, please find enclosed fifteen (15) copies of the prepared rebuttal testimony of Dr. Ali Asraf Chowdhury on behalf of the California Independent System Operator Corporation.

Thank you in advance for your consideration.

Respectfully,  
  
Andrew Ulmer  
Counsel

Enclosures

cc: Margaret Rosegay, Esq. (via electronic mail)  
Ms. Laura Hunter (via electronic mail)  
Bart Miesfeld, Esq. (via electronic mail)

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

<b>In the Matter of</b>  <b>Dynegy South Bay, LLC South Bay Power Plant San Diego County</b>	
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**Prepared Rebuttal Testimony of Dr. Ali Asraf Chowdhury  
on behalf of the California Independent System Operator Corporation  
March 3, 2010**

**I. Witness Qualifications and Purpose of Rebuttal Testimony**

Q1. Please state your name?

A1. My name is Ali Asraf Chowdhury.

Q2. By whom are you employed?

A2. I am employed by the California Independent System Operator Corporation (the ISO), located at 151 Blue Ravine Road, Folsom, CA 95630. The ISO is a nonprofit public benefit corporation that operates the electric transmission grid serving over 80 percent of California's electric load for the benefit of California's citizens. My title is Director of Regional Transmission. I oversee transmission planning efforts for the southern region of the ISO balancing authority area, which includes the service territory of Southern California Edison Company, San Diego Gas & Electric Company, and the Cities of Anaheim, Asuza, Banning, Pasadena, Riverside and Vernon. I have provided additional background concerning my professional experience in my Prepared Testimony dated February 22, 2010 in this matter.

Q3. What is the purpose of your rebuttal testimony?

A3. The purpose of my testimony is to respond briefly to the assertion set forth in the testimony of the *No More South Bay Power Plant Coalition* that the San Diego electricity system does not require the South Bay Power Plant for the remainder of 2010. Specifically, I wish to emphasize that the ISO's designation of units 1 and 2 at the South Bay Power Plant as Reliability Must Run means the generation is required to be available for reliability reasons, including meeting both the demands of load and providing voltage support to the San Diego local capacity area.

**II. The ISO requires units 1 and 2 at the South Bay Power Plant to address a projected supply deficiency in the San Diego area for 2010 and to support the operation of the electric system.**

Q4. In its testimony, the *No More South Bay Power Plant Coalition* calculates a surplus of available resources to serve demand in the San Diego area for 2010. What reaction, if any, do you have to this calculation?

A4. The *No More South Bay Power Plant Coalition* calculation includes resource additions that are not currently operational. When it designates generating units as Reliability Must Run, the ISO calculates available capacity in a local capacity area based on resources that have demonstrated reliable commercial operation. Generally, this standard means the resource is commercially available and has demonstrated reliable operation for at least one month. In its annual local capacity technical analysis for 2011 and in any future Reliability Must Run decisions, the ISO will examine all resource additions that can demonstrate reliable commercial operation.

Q5. Under applicable planning criteria, if the ISO determines a resource surplus exists in a local capacity area is that the end of the ISO's analysis?

A5. No. The testimony of the *No More South Bay Power Plant Coalition* refers to using "simple math" to calculate whether there are adequate resources within a transmission constrained area. Although the ISO does assess whether there are sufficient resources to serve demand under the ISO's planning criteria, the ISO

must also assess whether available resources serve to provide necessary voltage support and system support to maintain reliable operation of the electricity grid. The ISO makes this assessment consistent with national and regional planning standards and criteria, including the following:

- **North American Electric Reliability Corporation Standard TPL-002.** This standard requires among other things that the ISO plan to prevent cascading outages following a Category B contingency involving the loss of a single element of the bulk electrical system such as a transmission line;
- **Western Electricity Coordinating Council TPL – (001 thru 004) – WECC – 1 – CR – System Performance Criteria.** Section WRS3.2 of these criteria requires that the ISO plan to maintain sufficient voltage stability for an area modeled at 5% more than the area’s reference load level (1-in-10 load forecast) under normal system conditions and for single contingencies such as the loss of a transmission line.
- **The ISO’s Grid Planning Standards.** These standards require that Category B contingencies (i.e., single contingencies) include an overlapping outage of the most critical generation (G-1), followed by a transmission line outage (N-1).

Q6. Can you please explain whether or not units 1 and 2 at the South Bay Power Plant provide voltage support to the San Diego local capacity area?

A6. Yes, these units can provide a level of voltage support that stabilizes the San Diego electric system under a Category B contingency (an outage of the Otay Mesa Energy Center followed by the loss of the Southwest Powerlink transmission line). This is a critical reason that the ISO designated these units as Reliability Must Run for 2010.

Q7. What findings, if any, has the ISO made concerning the ability to maintain adequate voltage support in the San Diego area following a Category B

contingency absent the availability of units 1 and 2 at the South Bay Power Plant?

- A7. The ISO uses power flow, post-transient load flow, and transient stability assessment tools to study system performance under defined contingencies such as the loss of the Southwest Powerlink transmission line. The ISO models this line outage following a system condition in which the most critical generation (i.e., Otay Mesa Energy Center) is out of service and the remaining system generation is readjusted to meet local capacity area load requirements. These are technical studies of the electricity system to ensure that when the contingency occurs, the system is physically capable of maintaining reliable operation and does not cause voltage collapse or cascading outages within the ISO balancing authority area or adjacent balancing authority areas. The ISO describes this study process in its Final Report and Study Results for the 2010 Local Capacity Technical Analysis which is available on the ISO's website at the following address: <http://www.caiso.com/2495/2495c69b28da0.pdf> Based on the ISO's analysis, the San Diego local capacity area would require the operation of units 1 and 2 at the South Bay Power Plant after a Category B contingency in order to avoid potential voltage collapse on its system or neighboring power systems.
- Q8 How, if at all, is the ability of units 1 and 2 at the South Bay Power Plant to provide voltage support to the San Diego electric system relevant to whether replacement resources are electrically equivalent to these units?
- A8 In order to assess whether or not resources are electrically equivalent for purposes of voltage support to units 1 and 2 at the South Bay Power Plant, the ISO will need to ensure that during a Category B contingency, any such resource or combination of such resources provide sufficient voltage support to the San Diego electric system.

## **CERTIFICATE OF SERVICE**

I hereby certify that I have served the foregoing document upon all of the parties listed on the attached service list via electronic mail.

Dated at Folsom, California this 3<sup>rd</sup> day of March, 2010.

*/s/ Jane Ostapovich*  
Jane Ostapovich

## SERVICE LIST

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