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7 Facsimile: (619) 876-5368

8 Attorneys for Petitioner

9 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
10 COUNTY OF IMPERIAL

11 IMPERIAL IRRIGATION DISTRICT,

12 Petitioner,

13 v.

14 CALIFORNIA INDEPENDENT SYSTEM  
15 OPERATOR and DOES 1-20, inclusive,

16 Respondents.

Case No. ECU08934

**DECLARATION OF MICHAEL J. AGUIRRE  
IN SUPPORT OF PETITIONER'S  
RESPONSE IN OPPOSITION TO CAISO'S  
MOTION TO TRANSFER VENUE**

Date: January 20, 2016

Time: 8:30 a.m.

Dept. 7

Judge: Hon. Jeffrey B. Jones

18 Complaint filed: October 9, 2015

1 I, Michael J. Aguirre, hereby declare as follows:

2 1. I am an attorney duly licensed to practice law before all of the courts of the State  
3 of California, and I am a partner with the law firm of Aguirre & Severson LLP, one of the  
4 attorneys of record for the Plaintiffs/Cross-Defendants in this action. Except where otherwise  
5 stated, I have personal knowledge of the matters stated herein and if sworn as a witness could and  
6 would testify competently thereto.

7 2. Exhibit 1 is a true and correct copy of a letter received by me from the ISO  
8 describing a CD.

9 3. Exhibit 2 is a true and correct copy of pages from the Imperial Irrigation District's  
10 2014 Annual Report the Cover page, Contents page, and pages 16-17.

11 4. Exhibit 3 is a true and correct copy of a 27 February 2014 email from ISO's Kelly  
12 Kristen to ISO External Affairs Manager Gregory Van Pelt, CPUC Commissioner Michael  
13 Picker, CPUC Energy Department head Ed Randolph, ISO Policy VP Karen Edson, and several  
14 other CEC and CPUC officials detailing what the group had decided or was considering for  
15 decision.

16 5. Attached as Exhibit 4 is a true and correct copy of the 1 February 2012 Edison  
17 Event Notification to NRC.

18 6. Attached as Exhibit 5 is a true and correct copy of the Energy Institute at HAAS  
19 Work Paper 248 Market Impacts of A Nuclear Power Plant Closure (Revised 2015), cover page  
20 and page 1.

21 7. Attached as Exhibit 6 is a true and correct copy of a 5 April 2012 California Public  
22 Utilities Commission (CPUC) email to 25 recipients notes of the private meeting with SCE Gary  
23 Schoonyan regarding "SONGS summer planning meeting with SCE."

24 8. <http://www.eenews.net/videos/1514> is a website that includes a video of ISO head  
25 Steve Berberich. Attached as Exhibit 7 is a true and correct copy of the 18 April 2012 website link  
26 page.

27 9. Attached as Exhibit 8 is a true and correct copy of the 7 May 2012 California  
28 Energy Commission (CEC) 2012 Summer Readiness presentation by Robert Weisenmiller, Chair

1 of the California Energy Commission, Paul Clanon, Executive Director of the California Public  
2 Utilities Commission, and Steve Berberich, Chief Executive Officer of the California Independent  
3 System Operator.

4 10. Attached as Exhibit 9 is a true and correct copy of a 13 October 2012 email from  
5 Edison President Litzinger to CPUC President Peevey.

6 11. Attached as Exhibit 10 is a true and correct copy of a 12 June 2013 email from  
7 ISO's CEO, Berberich, to regulators and utility executives describing the mission of the "loss of  
8 SONGS" Task Force.

9 12. Attached hereto as Exhibit 11 is a true and correct copy of an 11 August 2014  
10 email the CPUC's Michael Picker to Karen Edson ISO Vice President, Policy regarding Imperial  
11 geothermal as a baseload source of energy.

12 13. Attached hereto as Exhibit 12 is a true and correct copy of a memorandum written  
13 for the 8 July 2013 SO replacement power meeting provided: "President Peevey has reserved a  
14 private room on the 3<sup>rd</sup> floor of the California Club\*\* Time: 6:00-9:00pm (6:00 Drinks 6:30 pm  
15 Dinner)" and Meeting Calendar for 8 July 2013 SONGS strategy dinner, Memorandum post  
16 SONGS Strategy Dinner at the California Club located at 538 S. Flower in downtown Los  
17 Angeles in a private dining room on the club's third floor.

18 14. Attached hereto as Exhibit 13 is a true and correct copy of an 8 August 2014  
19 (4:09 PM) email from ISO Director of State Government Affairs, Mary McDonald, to Governor  
20 Brown's Deputy Legislative Secretary, Martha Guzman-Aceves, regarding IID's efforts to  
21 increase transportation of its geothermal, solar and other renewable energy sources through the  
22 ISO to energy supply markets; and an email sent thirteen minutes later from ISO's Vice  
23 President for Policy and Client Services, Karen Edson, forwarding Ms. McDonald's email to  
24 CPUC Commissioner Michael Picker (previously on the Governor's renewable energy staff)  
25 accusing IID General Manager, Kevin Kelley, of making "incorrect representations to the  
26 Legislature."

27 15. Attached hereto as Exhibit 14 is a true and correct copy of an email invite from  
28 CEC Chairman Robert Weisenmiller regarding a 17 June 2014 meeting at the home of Air

1 Resources Board Chair, Mary Nichols to CEC Executive Director Rob Oglesby, CEC  
2 Commissioner Janea Scott, CEC Chair Bob Weisenmiller, ISO President Steve Berberich, CPUC  
3 Commissioners Peevey and Picker, and Senior Adviser to Governor Brown, Cliff Rechtschaffen.

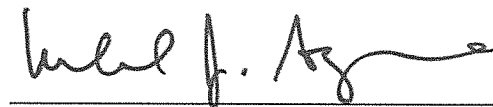
4 16. Attached hereto as Exhibit 15 is a 14 December 2013 dinner meeting at the  
5 California Club calendar item between CPUC officials (e.g. Michael Peevey) and long-time  
6 Edison CEO Al Fohrer (2002-2010) and Edison Attorney Steven Pickett.

7 17. Attached as Exhibit 16 is a 27 April 2015 and September 2015 series of emails  
8 between ISO and agents, officers, and employees of PacifiCorp, a utility corporation operating in  
9 six Western states that were part of emails obtained by my office from the Oregon Public Utility  
10 Commission (OPUC).

11 18. Attached as Exhibit 16 is the cover page of SB 350 was approved by the  
12 legislature on Friday, 11 September 2015.

13 I declare under penalty of perjury under the laws of the state of California that the  
14 foregoing is true and correct.

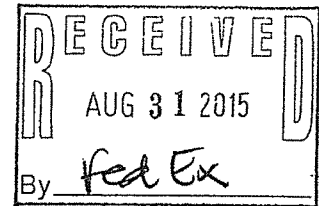
15 Executed this 5th day of January 2016, at San Diego, CA.

16  
17   
18 \_\_\_\_\_  
Michael J. Aguirre, Esq.

# EXHIBIT 1



August 27, 2015



***Via Electronic Mail & FedEx***

Michael J. Aguirre, Esq.  
Maria C. Severson, Esq.  
Aguirre & Severson, LLP  
501 West Broadway, Suite 1050  
San Diego, CA 92101

**Re: Imperial Irrigation District Public Records Requests**

Dear Mr. Aguirre and Ms. Severson:

This letter responds to 37 overlapping records requests that you have sent to the California Independent System Operator Corporation ("ISO") and various ISO personnel on behalf of your client Imperial Irrigation District ("IID") over the course of the last several weeks.

In summary, we have collected and enclosed with this letter a CD containing more than 17,000 pages of publicly available materials that are responsive to your various requests and have identified additional materials that we would be able to provide, if your client authorizes you to enter into a suitable non-disclosure agreement on its behalf covering security-sensitive information contained within those materials. We also respond specifically to two of your requests below. This transmittal does not provide individualized responses to the remainder of your requests, and we must deny them, because as discussed below, they are vague and overbroad, seeking voluminous material on numerous open-ended topics over multiple years. As we noted previously, we remain available to work with you in an effort to identify a more particularized and focused set of requests consistent with our Records Availability Policy ("RAP").

This letter is the ISO's initial written response under the RAP to 35 of the 37 requests we have received from your office, which we believe are all of your outstanding requests.<sup>1</sup> We responded to your first two requests in a July 17 letter, and in response

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<sup>1</sup> We are uncertain whether these constitute all of your requests. In many instances, the requests were sent to individual ISO personnel or invalid e-mail addresses, rather than to the ISO records mailbox as required by the RAP. Although we are responding

to that letter, you called, and we conferred on August 11 and 12. We also briefly discussed at that time the numerous additional requests the ISO had by then received from your office. I advised you that the ISO would provide a written response regarding these additional requests within approximately 14 days. On August 12, I sent you a letter confirming this understanding.

The ISO's RAP requires a party seeking records to make a request that is "sufficiently clear to reasonably describe an identifiable record." This requirement is important because it creates a starting point for the ISO to search for, collect, and review potentially responsive materials to determine whether they may be produced consistent with the ISO's confidentiality obligations, which include keeping various categories of information confidential, such as:<sup>2</sup>

- "Critical energy infrastructure information" that must be protected to safeguard the security of the electric system;
- "Commercially sensitive" information which could negatively impact competition among ISO customers or efficient operations;
- Proprietary data belonging to third parties;
- Certain preliminary drafts, notes, and memoranda; and
- Other materials that the ISO is required to keep confidential under its tariff or other regulatory requirements, including those imposed by the Federal Energy Regulatory Commission, federal or state law.

With two exceptions discussed below, your requests collectively and individually seek information contained within each of these protected categories. In addition, the requests are not "sufficiently clear" nor "reasonably describe" an identifiable record, and are thus not tailored or framed in a manner that enables the ISO to search for, collect, and review the vast volume of materials implicated, to determine which materials may be disclosable and which may not. The requests generally seek all documents in any form within a series of broadly defined, vaguely worded, and overlapping categories that in most cases span multiple years. There are, for example, multiple requests seeking all "real time flow data" across various transmission facilities for multiple years, numerous requests seeking all communications "mentioning" or "relating to" various aspects of the ISO's transmission planning or related topics over more than four years, and multiple requests seeking "all documents and writings" over a three-year period "relating" in any manner to various transmission upgrade projects. Responding to such requests is not feasible because it would require the ISO to search a massive amount of

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to all known requests, many were not properly submitted under the RAP, and we reserve our right to object to any requests not properly submitted.

<sup>2</sup> See, the Records Availability Policy, Section 5.2.

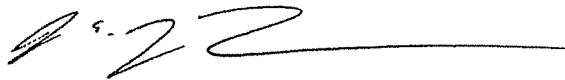
data and records, and then analyze each page of each record to determine whether it is disclosable, protected under the RAP, or may be publicly disseminated.

Although these requests do not meet the "identifiable record" requirement, the ISO has nonetheless undertaken a substantial effort to identify and collect publicly available records from our annual transmission planning and related stakeholder processes that are responsive to many of your requests. These records total more than 17,000 pages. We copied them onto a CD that is enclosed with this letter for your convenience. The ISO has also located additional related materials from our annual transmission planning stakeholder and related processes that include security-sensitive critical energy infrastructure information. Our existing policies make these materials available to market participants and certain other stakeholders, including IID, provided that they enter into an appropriate non-disclosure agreement protecting against misuse of the information or disclosure to other parties. We are willing to explore whether, with your client's permission and consent, it would be possible to enter into a suitable non-disclosure agreement with you that would allow us to provide those additional materials to you.

As noted, two of your requests, while not properly submitted under the RAP, are sufficiently clear and particular to permit an individualized response. Specifically, on July 21 you sent two requests to the ISO CEO seeking any records reflecting any ownership interests that ISO leadership may have in Southern California Edison, Pacific Gas & Electric, Berkshire Hathaway, and Semptra, or reporting any financial interest by ISO leadership in a related party transaction. The ISO responds that no such documents exist. ISO leadership does not hold any interests in the identified entities, nor have they engaged in any related party transactions.

We continue to remain willing to work with you to identify and provide additional publicly available records consistent with our RAP. Please do not hesitate to contact me if you would like to discuss this matter further.

Very truly yours,

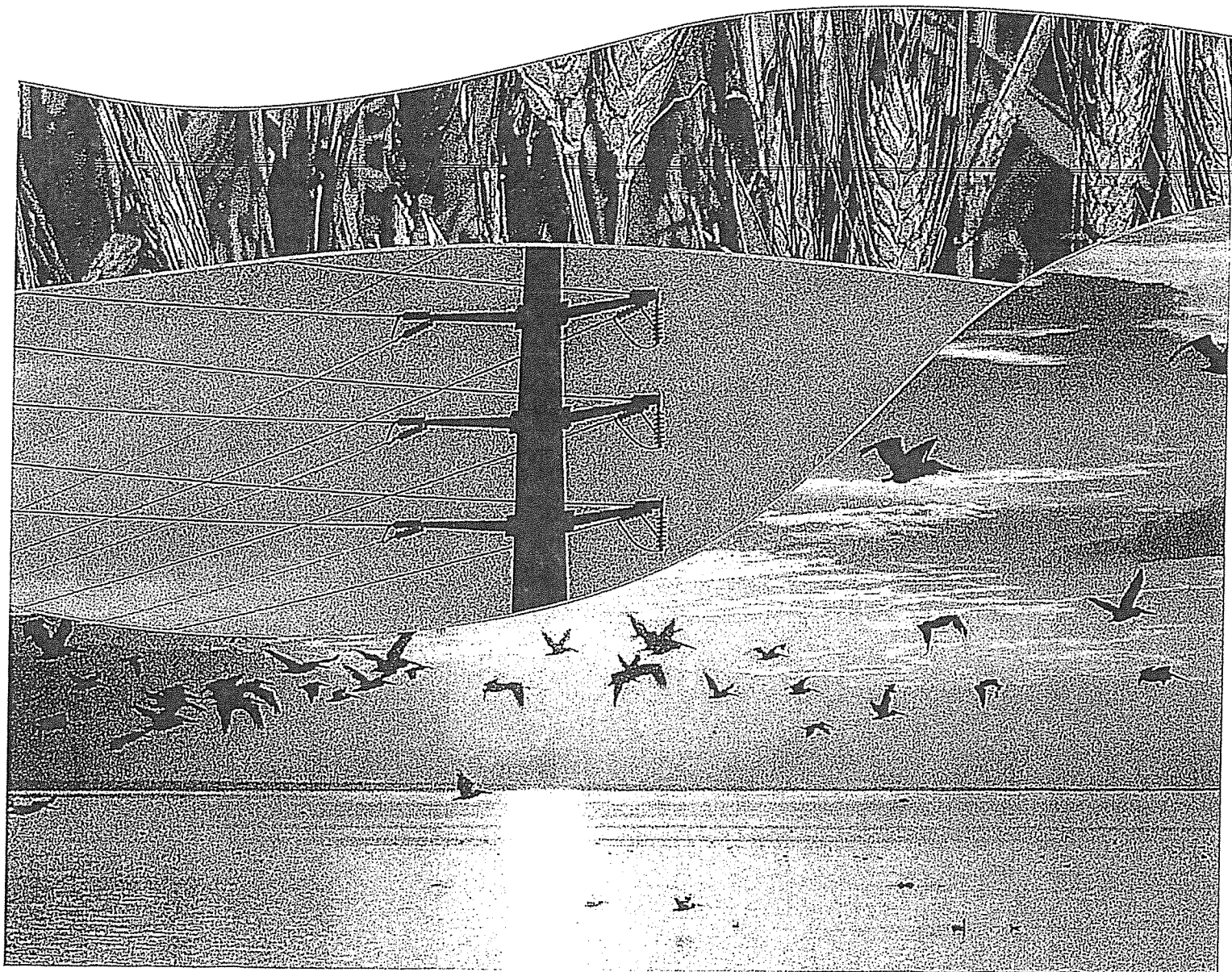
A handwritten signature in black ink, appearing to read "J. Spomer", followed by a long horizontal line extending to the right.

John Spomer  
Senior Counsel

Enclosure (via FedEx)

# EXHIBIT 2

# IMPERIAL IRRIGATION DISTRICT • ANNUAL REPORT





## CONTENTS

2	Board of Directors
3	Management
4	A united vision for our future
5	At the nexus of regional water and energy policies
6	Saving the Salton Sea
10	Every drop counts
14	Regional energy solutions
18	Financial statements

## TRANSMISSION

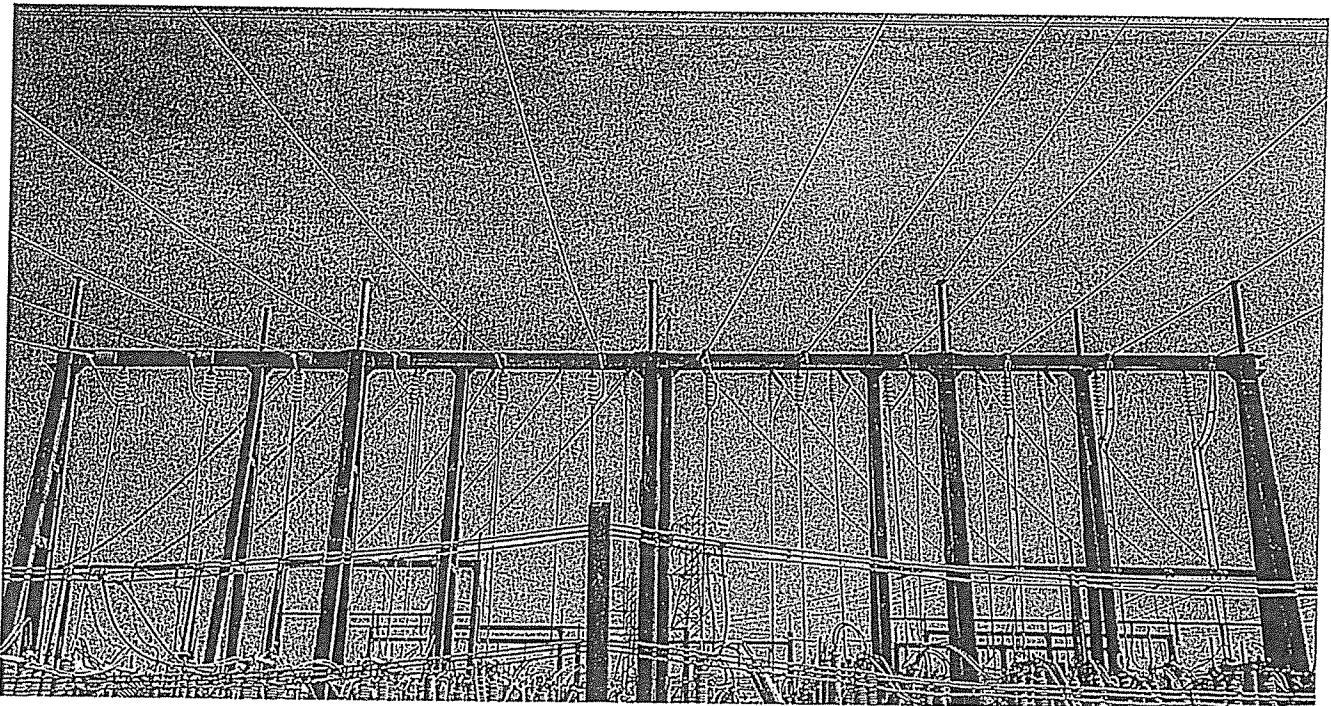
IID continues to strengthen its infrastructure so renewable energy can be carried through its transmission system into the regional grid. The district's multiregional Strategic Transmission Expansion Plan expands the export capability of renewables to the grid while ensuring that IID maintains its balancing authority, meets federal and state regulations and replaces lost generation in California.

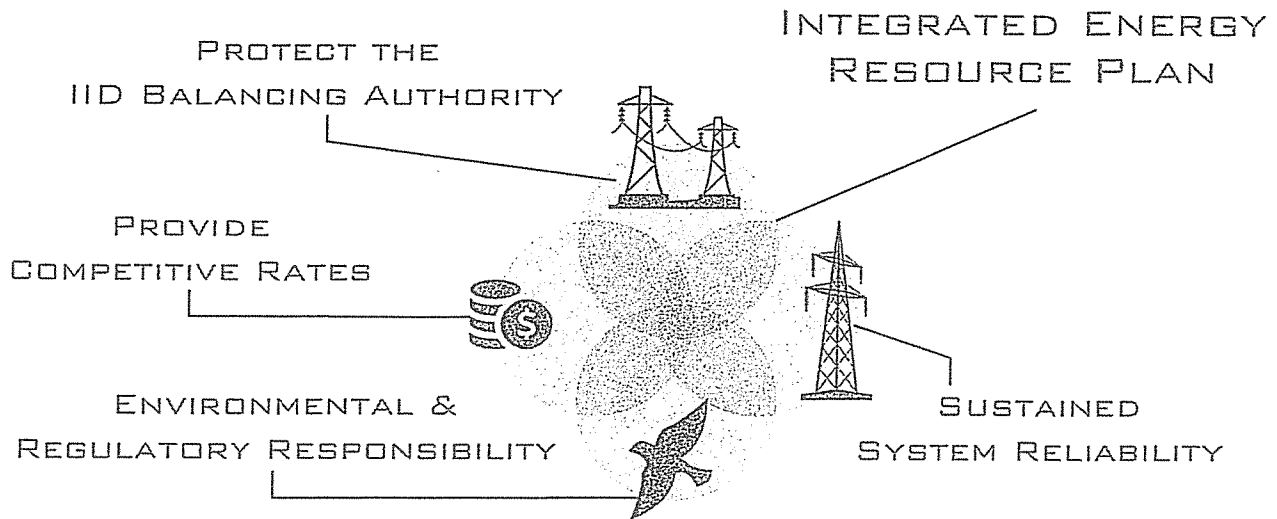
The plan proposes the construction of a 2,200-megawatt, 230-kilovolt collector system in the IID service territory. The district proposes to finance, construct and upgrade its internal transmission network, creating an internal collector system that would facilitate the export of 1,100 megawatts to the state and simultaneously another 1,100

megawatts to the greater desert Southwest. IID would be able to further enhance the system as the need for additional renewable energy generation occurs.

IID also completed Path 42 in 2014, rebuilding the Coachella Valley-Ramon transmission line in an attempt to address the most restrictive element in transmitting renewables in energy-rich Southern California. The upgrade increases transmission capacity and reduces congestion, enabling the efficient flow of green energy to and from IID's service area.

The district is also working with Arizona Public Service to explore joint participation in an energy transmission line between Yuma and Phoenix to accommodate generation, interconnection and grid reliability.





#### INTEGRATING RESOURCES

IID ramped up its integrated energy resource plan in 2014 to support growing needs, intending to invest \$1 billion in local energy capital projects over the next five years. Projects range from a state-of-the-art battery storage system in El Centro and the purchase of a solar plant in Niland to an aggressive systematic upgrade of the transmission system.

To help fund this ambitious work, following a comprehensive cost-of-service study and public hearings, an increase was approved to IID's base electric service rate (about 7 percent). Effective in 2015, the goal of the first rate increase in 20 years is to create a balance of rate structures that will provide reasonable revenue stability.

Developing a 20-megawatt, 33-megavolt ampere utility-grade battery storage system is one major project in integrating IID's energy resources. In 2014, the district completed engineering studies for the battery storage system, which is designed to provide operational support across IID's balancing authority through rapid response support capabilities that mitigate stability and power quality issues when energy from renewable sources are integrated into the local grid. Since the use of battery storage on a utility scale is relatively new to the energy industry, IID is on the cutting edge and leading the way.

As a local public energy provider not governed by shareholders, many of IID's changes are driven by its intent to maintain its balancing authority in a changing regulatory environment and continuing to provide reliable, low-cost electric service to the public that it serves.

# EXHIBIT 3

## Message

**From:** Weisenmiller, Robert@Energy [Robert.Weisenmiller@energy.ca.gov]  
**Sent:** 2/28/2014 3:21:29 PM  
**To:** Picker, Michael [Michael.Picker@cpuc.ca.gov]  
**Subject:** Re: updated DRAFT for our meeting today

Looks good. I am pushing for a dinner of task force leads in April. Also another joint iepr workshop in the summer to review status

Bob  
Sent from my iPhone

> On Feb 28, 2014, at 5:12 AM, "Picker, Michael" <Michael.Picker@cpuc.ca.gov> wrote:

> FYI.

> Michael Picker

Redacted

```
> Begin forwarded message:
```

> From: Michael Picker <Michael.Picker@GOV.CA.GOV<mailto:Michael.Picker@GOV.CA.GOV>>  
> Date: February 27, 2014 7:28:08 PM PST  
> To: "Michael Picker (michael.picker@cpuc.ca.gov<mailto:michael.picker@cpuc.ca.gov>)"  
> <michael.picker@cpuc.ca.gov<mailto:michael.picker@cpuc.ca.gov>>  
> Subject: FW: updated DRAFT for our meeting today

> Michael Picker,  
> formerly Senior Advisor to the Governor for Renewable Energy Facilities

> FYI: my new contacts are

> Commissioner Michael Picker  
> California Public Utilities Commission  
> 505 Van Ness Street, Fifth Floor  
> San Francisco, CA 94102  
> (415) 703-2444

> From: Kelley, Kristen [mailto:kkelley@caiso.com]  
> Sent: Thursday, February 27, 2014 1:16 PM  
> To: Van Pelt, Gregory; Michael Picker; Randolph, Edward; 'Tollstrup, Michael@ARB  
(mtollstr@arb.ca.gov<mailto:mtollstr@arb.ca.gov>); Pettingill, Phil;  
'Drew.Bohan@energy.ca.gov<mailto:Drew.Bohan@energy.ca.gov>'; 'Kasmar, Jeff'  
(Jeff.Kasmar@cpuc.ca.gov<mailto:Jeff.Kasmar@cpuc.ca.gov>); 'Oglesby, Rob@Energy  
(Rob.Oglesby@energy.ca.gov<mailto:Rob.Oglesby@energy.ca.gov>); 'Barker, Kevin@Energy  
(Kevin.Barker@energy.ca.gov<mailto:Kevin.Barker@energy.ca.gov>); 'Walker, Cynthia  
(cynthia.walker@cpuc.ca.gov<mailto:cynthia.walker@cpuc.ca.gov>); 'Drew, Tim G.'; 'Bender,  
Sylvia@Energy'; Edson, Karen  
> Subject: RE: updated DRAFT for our meeting today

> We had a minor update since I sent this out...we will view this updated presentation on our call.  
Kristen

- > 1. Include 1 page Annual view of critical milestones only  
>  
> 2. Updated date for Filing date for proposed amendment of TCA appendix E on Transmission track

> From: Kelley, Kristen  
> Sent: Thursday, February 27, 2014 12:08 PM  
> To: Van Pelt, Gregory; Picker, Michael; Randolph, Edward; 'Tollstrup, Michael@ARB  
(mtollstr@arb.ca.gov<mailto:mtollstr@arb.ca.gov>); Pettingill, Phil;  
'Drew.Bohan@energy.ca.gov<mailto:Drew.Bohan@energy.ca.gov>'; 'Kasmar, Jeff'  
(Jeff.Kasmar@cpuc.ca.gov<mailto:Jeff.Kasmar@cpuc.ca.gov>); 'Oglesby, Rob@Energy  
(Rob.Oglesby@energy.ca.gov<mailto:Rob.Oglesby@energy.ca.gov>); 'Barker, Kevin@Energy  
(Kevin.Barker@energy.ca.gov<mailto:Kevin.Barker@energy.ca.gov>); Walker, Cynthia

(cynthia.walker@cpuc.ca.gov<mailto:cynthia.walker@cpuc.ca.gov>); 'Drew, Tim G.'; 'Bender, Sylvia@Energy'; Edson, Karen

> Subject: updated DRAFT for our meeting today

>

> Team,

> I sent out a DRAFT presentation on 2/16/14 for your review. Since, the agencies have made some updates. This revised DRAFT includes the updates I have received up to today. This presentation is what we will be discussing at today's call/WebEx. In addition, Jeff Kasmar will be introducing Tim Drew as taking over his activities.

>

> For you information, a summary of the recent changes include:

> Preferred Track

>

> 1. Removal of ISO Stakeholder process and BOG decision for an EE/DR Auction - This initiative was canceled by the ISO

>

> 2. Extension of EM&V study on Flex Alert to 2/28/14

>

> 3. Earlier completion of LTPP Track IV Proposed Decision

>

> 4. Minor date changes in Rule 24 Tariff tasks

> Conventional Gen Track

>

> 1. Renaming and adjusting Carlsbad tasks

> Transmission Track

>

> 1. Addition of CEC Fatal Flaw Analysis Completion for Albherhill/Suncrest 500 kv line (already completed)

>

> 2. Renaming of the 5/29 "evaluation" of SONGs voltage criteria adjustment to "Quantification" of the benefit

>

> 3. Removal of the task for SCE to submit NIPRS (not needed)

>

> 4. Removal of NRC Decision on SONGs voltage criteria adjustment (not needed)

> Contingency Options

>

> 1. Moving the determination of triggers/timeline from end of March to June 15, 2014

>

> 2. Adding other tasks to determine if accelerating the generation process is needed and subsequent steps

>

>

>

>

>

> Kristen Kelley, PMP

> California ISO Program Management Office

> Reliability Planning for LA Basin and San Diego

> Replacement Requirements for Scheduled Generation Outages

> Integrated Optimal Outage Coordination

> 916.351.2336

> 916.719.8202 cell

>

> \*\*\*\*\*

> The foregoing electronic message, together with any attachments thereto, is confidential and may be legally privileged against disclosure other than to the intended recipient. It is intended solely for the addressee(s) and access to the message by anyone else is unauthorized. If you are not the intended recipient of this electronic message, you are hereby notified that any dissemination, distribution, or any action taken or omitted to be taken in reliance on it is strictly prohibited and may be unlawful. If you have received this electronic message in error, please delete and immediately notify the sender of this error.

> \*\*\*\*\*

> <20140227 Southern California Reliability Planning Update\_DRAFT1a.pptx>

# EXHIBIT 4

Power Reactor  
Facility: SAN ONOFRE  
Region: 4 State: CA  
Unit: [ ] [ ] [3]  
RX Type: [1] W-3-LP,[2] CE,[3] CE  
NRC Notified By: DOUG FOOTE  
HQ OPS Officer: JOHN KNOKE  
Emergency Class: NON EMERGENCY  
10 CFR Section:  
50.72(b)(2)(iv)(B) - RPS ACTUATION - CRITICAL

Event Number: 47628  
Notification Date: 01/31/2012  
Notification Time: 22:58 [ET]  
Event Date: 01/31/2012  
Event Time: 17:30 [PST]  
Last Update Date: 01/31/2012

Person (Organization):  
JEFF CLARK (R4DO)  
SCOTT MORRIS (IRD)  
LOUISE LUND (NRR)

Units	SCRAM	Code	RX	CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
3		M/R	Y		100	Power Operation	0	Hot Standby
Event Text								

MANUAL TRIP DUE TO A PRIMARY TO SECONDARY LEAK GREATER THAN 30 GAL/HR

"At 1505 PST, Unit 3 entered Abnormal Operation Instruction S023-13-14 'Reactor Coolant Leak' for a steam generator leak exceeding 5 gallons per day.

"At 1549 PST, the leak rate was determined to be 82 gallons per day. At 1610 PST, a leak rate greater than 75

NRC: Event Notification Report for February 1, 2012

<http://www.nrc.gov/reading-rm/doc-collections/event-status/event/2012/>

gallons per day with an increasing rate of leakage exceeding 30 gallons per hour was established and entry into S023-13-28 'Rapid Power Reduction' was performed.

"At 1630 PST, commenced rapid power reduction per S023-13-28 'Rapid Power Reduction'. At 1731 PST, with reactor power at 35% the Unit was manually tripped. At 1738 PST, Unit 3 entered Emergency Operation Instruction S023-12-4 'Steam Generator Tube Rupture'.

"At 1800 PST the affected steam generator was isolated."

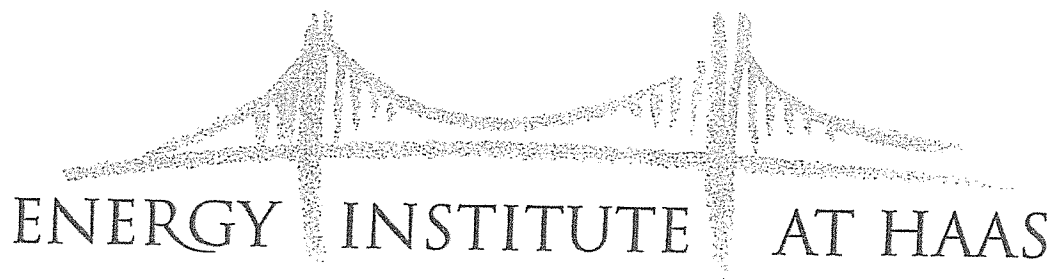
All control rods fully inserted on the trip. Decay heat is being removed thru the main steam bypass valves into the main condenser. Main feedwater is maintaining steam generator level. No relief valves lifted during the manual trip. The plant is in normal shutdown electrical lineup.

Unit 2 is presently in a refueling outage and was not affected by this event.

The licensee has notified the NRC Resident Inspector. The licensee has issued a press release.

Page Last Reviewed/Updated Thursday, March 29, 2012

# EXHIBIT 5



EI @ Haas WP 248

## Market Impacts of a Nuclear Power Plant Closure

Lucas Davis and Catherine Hausman  
Revised May 2015

*Energy Institute at Haas working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to review by any editorial board.*

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<http://ei.haas.berkeley.edu>

# 1 Introduction

Nuclear power has historically supplied a substantial portion of electricity – 20 percent in the United States and 14 percent worldwide for 2000 to 2012. As recently as 2008, the outlook for the industry was robust, with nuclear plants earning large profits. Since 2009, however, prospects for nuclear power – even at existing facilities – have substantially waned, with the closure of several large facilities and predictions of more closures to come (EIA 2014). As we describe in detail, multiple factors have contributed to the recent closures of nuclear plants. Peak wholesale electricity prices fell around 50 percent in real terms from 2007 to 2012,<sup>1</sup> a result of both falling natural gas prices and stagnant electricity demand. At the same time, costs for nuclear plants have been rising, a combination of rising wages and fuel prices, stricter safety regulations, and the aging of decades-old equipment.

To many observers, low profitability at *existing* nuclear plants is surprising, since the marginal cost of generation is very low at nuclear plants. However, while marginal costs hour-to-hour are low, fixed operating costs (e.g., keeping employees on staff) are high. Total operations and maintenance (O&M) costs at U.S. nuclear plants have increased by about 20 percent in real terms since 2002 and today are more than twice as high as O&M costs at natural gas plants. These higher costs reflect the fact that nuclear plants have substantially higher requirements for safety, security, and testing.

In this paper, we use evidence from a nuclear power plant closure to examine the rapidly evolving economics of nuclear power and to assess the potential private and social consequences of plant closures. While in operation, the San Onofre Nuclear Generating Station (SONGS) generated an average of 16 million megawatt hours of electricity annually, making it the second largest electric generating facility in California. During this period, SONGS generated enough electricity to meet the needs of 2.3 million California households<sup>2</sup> – about 8 percent of all electricity generated in the state. SONGS was closed abruptly in February 2012, when workers discovered problems with the plant’s steam generators. Although it was not known at the time, SONGS would never operate again.

The first-order effect of the plant’s exit was a large inward shift of the electricity supply curve. Like other nuclear power plants, SONGS produced electricity at very low marginal cost. Consequently, the plant was always near the bottom of the supply curve, operating around the clock and providing a consistent source of electricity. When SONGS was closed, this generation had to be made up for by operating other generating resources with higher marginal cost. We use rich micro-data from a variety of sources and a novel econometric

---

<sup>1</sup>Peak wholesale prices at various hubs for ICE contracts; source: EIA. Prices throughout are deflated to 2013 dollars using the GDP deflator.

<sup>2</sup>U.S. DOE/EIA “Electric Sales, Revenue, and Average Price,” November 2013, Tables T1 and T2. California households used an average of 6.9 megawatt hours in 2012.

method to identify those marginal resources that would be expected to increase production. We find that the lost generation from SONGS was met largely by in-state natural gas plants. Bringing these additional plants online cost an average of \$63,000 per hour in the twelve months following the closure. The SONGS closure also had important implications for the environment, increasing carbon dioxide emissions by 9 million tons in the first twelve months. To put this in some perspective, this is the equivalent of putting 2 million additional cars on the road.<sup>3</sup>

There was also a second-order, but not insignificant, additional impact on the market. SONGS was even more valuable than these numbers suggest because of its location between Los Angeles and San Diego, two enormous demand centers. Although there is transmission that connects Southern California to the rest of the state, the capacity is limited. Prior to the closure, transmission capacity between Northern and Southern California was almost always sufficient, so that wholesale prices equalized in the two regions during the vast majority of hours. However, beginning with the closure in 2012, we document a substantial divergence in prices between Northern and Southern California. This binding transmission constraint and other physical constraints of the grid meant that it was not possible to meet all of the lost output from SONGS using the lowest cost available generating resources.

These second-order effects are reflected in our model as “residuals,” measured as deviations from predicted plant behavior. We find that during low demand hours, the change in generation closely follows predictions based on pre-closure behavior, with about half of the increased generation coming from Southern California and the other half coming from Northern California. During high demand hours, however, we find significant residual effects: higher cost generating units coming online more than predicted. In high demand hours in 2012, we find that as much as 75 percent of the lost generation was met by plants located in Southern California. On average, these constraints increased generation costs by an average of \$4,500 per hour, implying that the total cost of additional natural gas generation was almost \$68,000 per hour in the twelve months following the closure.

These residuals also potentially reflect non-competitive behavior. Tight market conditions make it more profitable for certain firms to exercise market power, and using our model we are able to determine which individual plants changed their behavior the most after the SONGS closure. Because of the transmission constraints, the largest positive residuals are at Southern plants, and the largest negative residuals are at Northern plants. Surprisingly, we also find large negative residuals during high demand hours at two Southern plants: Alamitos and Redondo, both owned by the same company. This was unexpected but, as it turns

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<sup>3</sup>According to U.S. DOE/EIA Annual Energy Review, September 2012, Table 2.8 “Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy”, light-duty vehicles with a short wheelbase use an average of 453 gallons of gasoline annually. For each gallon of gasoline, 19.6 pounds of carbon dioxide are emitted.

# EXHIBIT 6

## Message

**From:** Stevens, Brian [brian.stevens@cpuc.ca.gov]  
**Sent:** 4/5/2012 10:56:32 PM  
**To:** Randolph, Edward F. [edward.randolph@cpuc.ca.gov]; Room 5305 [room5305@cpuc.ca.gov]; Sterkel, Merideth "Molly" [merideth.sterke@cpuc.ca.gov]; Ikle, Judith [judith.ikle@cpuc.ca.gov]; Gary.Schoonyan@sce.com; Clanon, Paul [paul.clanon@cpuc.ca.gov]; Kersten, Colette [colette.kersten@cpuc.ca.gov]; Lindh, Frank [frank.lindh@cpuc.ca.gov]; St. Marie, Stephen [stephen.stmarie@cpuc.ca.gov]; Franz, Damon A. [damon.franz@cpuc.ca.gov]; Beck, Valerie [valerie.beck@cpuc.ca.gov]; Baker, Simon [simon.baker@cpuc.ca.gov]; Liang-Uejio, Scarlett [scarlett.liang-uejio@cpuc.ca.gov]; Brown, Carol A. [carol.brown@cpuc.ca.gov]; Como, Joe [joe.como@cpuc.ca.gov]; Sandoval, Catherine J.K. [catherine.sandoval@cpuc.ca.gov]; Charkowicz, Ed [ed.charkowicz@cpuc.ca.gov]; Tisdale, Matthew [matthew.tisdale@cpuc.ca.gov]; Prosper, Terrie D. [terrie.prosper@cpuc.ca.gov]; Brooks, Donald J. [donald.brooks@cpuc.ca.gov]; Lakhchaura, Megha [megha.lakhchaura@cpuc.ca.gov]; Kaneshiro, Bruce [bruce.kaneshiro@cpuc.ca.gov]  
**Subject:** Notes from April 4th SCE SONGS Summer Outlook meeting  
**Attachments:** Notes April 4 SONGS summer planning meeting with SCE.doc

Please feel welcome to provide input on these notes to ensure I have a robust capture of the meeting.

The main action items from this meeting include:

~~Colette requested a page informational sheet on market monitoring from SCE~~

~~The next meeting with SCE could be next Friday the 20<sup>th</sup> before 2:00 PM~~

~~And at a later meeting in ED regarding DR, we should plan a separate meeting with the ISO regarding DR planning~~

Thanks,

Brian Stevens

---

**From:** Ikle, Judith on behalf of Randolph, Edward F.  
**Sent:** Mon 4/2/2012 10:28 AM  
**To:** Randolph, Edward F.; Stevens, Brian; Room 5305; Sterkel, Merideth "Molly"; Ikle, Judith; 'Gary.Schoonyan@sce.com'; Clanon, Paul; Kersten, Colette; Lindh, Frank; St. Marie, Stephen; Franz, Damon A.; Beck, Valerie; Baker, Simon; Liang-Uejio, Scarlett; Brown, Carol A.; Como, Joe  
**Subject:** FW: Updated: Meeting with SCE Follow-Up Information on Summer Supply Outlook with Gary Schoonyan

When: Wednesday, April 04, 2012 2:00 PM-3:00 PM (GMT-08:00) Pacific Time (US & Canada).

Where: Room 5305

Note: The GMT offset above does not reflect daylight saving time adjustments.

\*~\*~\*~\*~\*~\*~\*~\*~\*~\*

1) Current SONGS status

- a. Both units are still in cold shutdown
- b. Return to service forecast: Unit 2- June 1<sup>st</sup>; Unit 3 – June 16<sup>th</sup>
  - i. These numbers represent the work needed to be done to get the units restarted. Parallel to this is the analysis to identify the root cause.
  - ii. They do need to go to the NRC to permission to restart; these dates represent the physical work needed.
  - iii. Commissioner Sandoval: If for some reason they are not able to identify the root cause, these dates should be pushed out.
  - iv. The time to restart the steam units is 1-2 weeks.
  - v. There is about a month of continued investigation with unit 2. They will begin restart after the NRC is satisfied and they have taken into account in unit 2 the lessons learned from unit 3.
- c. Valerie Beck: Some discussions alluded that SCE made a differentiation between root cause and direct cause. Are they making that differentiation?
  - i. This is NRC correction actions speak.
  - ii. The difference is to identify what happened v. why it happened. Finding the root cause of unit three is crucial to ensure it doesn't happen to unit 2.
  - iii. They will need to get us to speak with the engineers for further information.
  - iv. Commissioner Sandoval: The NRC letter is very concerned with why it happened not just what happened.

2) Contingency Planning Cases Being Considered

- a. Scenario A – Unit 2 returns to service in spring 2012 while Unit 3 remains off-line. Unit 2 trips during 2012 summer peak.
- b. Scenario B – Both SONGS units off-line through 2012 peak but at least one of the units return to service beginning in 2013.

3) Summer 2012 Peak Without SONGS

- a. There are still questions to answer regarding local resources in LA Basin.
  - i. Including whether there will be emission issues in the Basin with whatever is necessary to replace SONGS

- ii. AQMD – raising some questions about HB emissions questions – SCE’s model does not take into account the diesel that will fire up in case of a blackout.
  - 1. SCE at this point cannot add that to their model, but they can do that analysis after the fact.
- iii. Carol Brown: there is the whole Port of LA issue and whether the ships can plug into electricity or run diesel (also Port of LA)
  - 1. SCE believes this “cold ironing” issue is understood and analyzed.
- iv. Carol Brown heard the AQMD does not like HB units 3 and 4 coming online, but how can they say that if they haven’t modeled these other contingencies?
- v. Commissioner Sandoval: emergency diesel does not ding the companies under US EPA regs. This is a major deficiency in the model.
- vi. Colette: In general we have a better summary for how we are prepped for market monitoring in the summer. Prices have not been impacted even if supply is scarce, and there are other benchmarks including exceptional dispatch and congestion revenue. If we’re doing our job, we need to look at specificity other than prices. ~~REQUESTED: a page on market monitoring to leave it to their judgment as to what should be covered.~~
- vii. SCE: we did some assessments and to date there has been no impact to price with the units out, although this summer there is a projected \$/MWh increase in cost.
- b. Judith: We’ve heard CAISO’s software has caused more starts than historically has been the case; can SCE confirm?
  - i. Edison’s 4 peakers have run more in the last year than previous in terms of starts, and the CAISO market design has changed as they are concerned about having flexible resources in real time. They have 400-700 MW/hour in standby services, and those resources are started more than in the past.
- c. Commissioner Sandoval: question about the third bullet (likely insufficient local area resources in the LA Basin without at least one of the SONGS units): What is their perspective about what this means?
  - i. Concern not just the LA Basin but also SD –
  - ii. The grid isn’t as homogenous as they would like it, for procurement they need about 10,600 MW of supply in the LA Basin to meet demand, and there is a total of 12,000MW of supply in the LA Basin.

- iii. With SONGS 2 and 3 out, they are 800MW short as opposed to 1,500MW long.
- iv. It is in south OC where the problem is not just amount of power but the supply of vars necessary to keep voltage up. SDG&E faces the same issue.

- 1. OC Ellis substation, Santiago substation – from HB down to SONGS

4) Possible Generation Actions

- a. They are talking with CAISO to return HB 3 and 4 – which would serve 450 MW to the grid
- b. Cost to get HB running again
  - i. Up to \$20 million
  - ii. AES says the gas service has been cut and there have been holes punched in the boiler for tax purposes. They can get them back online, and there is no public sign they have been demolished. It would take about 1 month to get them back online.
- c. They can put trailer mounted generators at substations
  - i. 4 25MW generators with a total capacity of 100MW (10 million dollars/unit/year)
  - ii. They want to lock these down without committing for the year.
  - iii. There may or may not be gas lines nearby, in which case they would use diesel if not.

5) Transmission considerations

- a. Voltage drop
  - i. They put in systems such that there are relays so if voltage drops, they drop significant load to maintain the system reliability.
    - 1. The load drop is 1,500 MW.
  - ii. They are forced because of the time constraints so they would be dropping load at the four south OC substations.
    - 1. The system is “smart” and would drop 1 to 4 substations as needed
    - 2. The substations are Ellis – HB, Viejo – Lake Forest, Santiago – Irvine, and Johanna – Santa Ana: These are the substations closest to SONGS.

3. If HB 3 and 4 are available, these contingencies are still necessary

iii. Community outreach on this topic is needed.

1. Commissioner Sandoval: the community outreach needs to not only say what is happening, but it needs to be explicit about what denizens of the area need to do to respond. Also, the outreach must be towards nontraditional media and being multi-lingual: specifically in Spanish, Vietnamese, and Chinese.

2. And we need to use weather forecasts to see this coming in advance

a. SCE explains that the marine layer in this area during this time is very unpredictable and thus can cause the temperature to change up to 10 degrees without notice.

iv. Coordination with SD – because this is the southern part of SCE near northern SDG&E, any contingency would impact them too.

6) Demand Side Resource Summary

a. Key Programs

i. Summer discount plan is AC cycling – 50MW of curtailment potential in those 4 substations available. They have potential for 5-8 MW through a couple of measures (more customers on the program, replacing the switches on the ACs that might not be working)

1. There is no correlation between the customer participation and which substation will be shut off first – just the substation with the lowest voltage.

ii. Base interruptible program

1. 30 MW of load reduction potential for those customers. Right now they don't geographically dispatch this program.

iii. There is 27 more MW in the programs if users turn their base generators on to participate in the event. There are policy issues at AQMD, although the CPUC tariff allows for this. However, a clarification from the CPUC allowing it would be helpful, and a CPUC or Gov's office declaration of emergency might be necessary to get AQMD on board.

1. The current permits only allow the generators to run if there is a blackout not to run to prevent a blackout.

iv. Other 2012 DR and conservation options

1. 20/20 potential reeffectuate
  - a. 11 MW for commercial customers only
  - b. SCE will file an advice letter seeking approval to move forward
  - c. During the energy crisis it wasn't just commercial, not now the non commercial programs are covered by other programs.
  - d. Startup cost would be 200k for marketing, outreach, and billing changes.
2. Signing the contract with McGuire this week
  - a. This would be a robust program to explain what you need to do in a flex your power situation over the course of the summer.
  - b. Commissioner Sandoval – They have yet to sign a contract
    - i. Do they have in the contract stuff for outreach for multilingual people, non traditional media sources, the Santa Ana area has a lot of Latinos and Vietnamese people.
    - ii. SCE – yes, this is multi lingual, and it is similar to the advertisements of the past.
    - iii. We need to be cautious that we don't replicate the past because last September she heard an ad that didn't explain what to do – don't repeat that.
    - iv. Commissioner Sandoval "The takes are high, and we're trying to prevent a blackout – we need to make sure we get the message right."
  - c. From an internal proposal, they asked Wally to provide a 6, 8, and 10 million dollar proposal.
    - i. The 10 million dollar proposal might be state wide – and we should target the affected areas.
  - d. Ed Randolph: We can help with free media campaigns, as well, through the CPUC and Governor's Office.

7) Electric Emergency Action Plan

- a. Every year they file this plan with the CAISO and ED, and they are working on it to coordinate the changes necessary for this year.
- b. They are not starting from scratch here – augmenting last year's plan
- c. Ed Randolph: one DR question, we've had spirited conversations with CAISO over our DR forecast v. theirs and he they would incorporate DR programs into their forecast. For all DR programs they have, how do they anticipate these programs get used and help reduce the cost of having other resources on standby?
  - i. SCE has other DR resources available to dispatch on a day ahead economic basis, and they can do it when the forecast for energy is at a trigger point.
  - ii. This includes aggregation with EnerNOC, and critical peak pricing that is their dynamic pricing. The summer discount plan and AC cycle program is 60MW another AC program is 650 MW, so when they have a system wide event, they can dispatch 1000 MW of most of the programs.
- d. Scarlet: What about south of Lugo? SCE seemed to be focusing only on south OC. The ISO asked for DR mapping in that location only.
  - i. Yes, what is available with the DR is the summer response program that can be dispatched south of Lugo. They are working for geographical dispatch on the main four, not south of Lugo.

8) Next meeting?

~~a. It can be the 23<sup>rd</sup> or Friday the 20<sup>th</sup> before 2:00 PM.~~

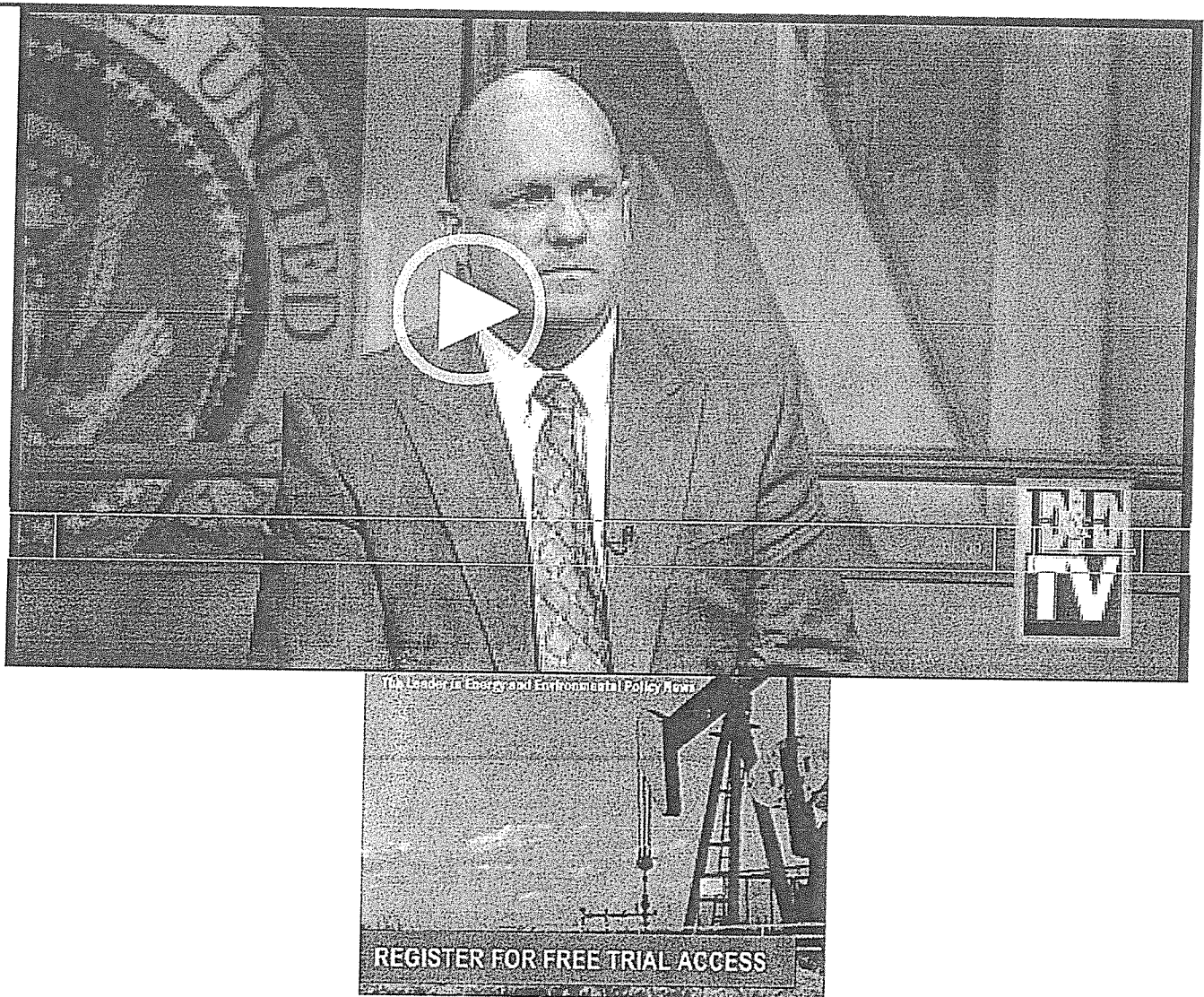
- i. Prior to that meeting, SCE will try to put together an agenda to put together the items.

9) Post SCE DR discussion

- a. Should we derate the MW of available due to customer fatigue after on a third consecutive day? Specifically for the agriculture pump and AC cycling.
  - i. We have data that says for these programs there is no customer fatigue from day 1 to day 2, but there is no data on what happens in day 3.
    - 1. Simon thinks the biggest risk is going to the ISO and saying we're giving these DR programs a haircut because there would be some fatigue even there is no data.
    - 2. The question here is what is the sunk cost?

3. We should follow up with the CALSO in a separate meeting not the Friday meetings.

# EXHIBIT 7



**TRANSMISSION:**

**California ISO's Berberich discusses impact of San Onofre shutdown on reliability**

*OnPoint: Wednesday, April 18, 2012*

How has California's transmission reliability been affected by the shutdown of the San Onofre nuclear facility, and issues with the Sutter Energy natural gas facility? During today's OnPoint, Stephen Berberich, president and CEO at the California ISO, discusses California's reliability challenges and clean energy accomplishments.

Sorted by:

Filter by:

Results 1 - 10 of 1589



# EXHIBIT 8



California Energy Commission



California Public Utilities Commission



California ISO  
Shaping a Renewed Future

# 2012 Summer Readiness

Robert Weisenmiller

Chair of the California Energy Commission

Paul Clanon

Executive Director of the California Public Utilities Commission

Steve Berberich

Chief Executive Officer of the California Independent System Operator

May 7, 2012

## CEC statewide planning studies and ISO operational studies essentially agree.

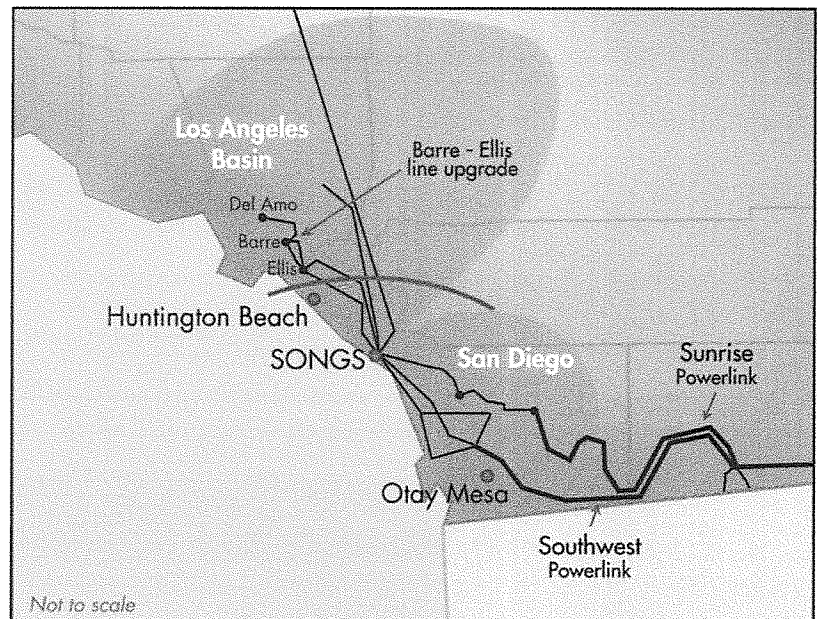
- On a statewide and ISO system basis, supply is adequate to cover a broad range of potential peak demand conditions and contingencies.
- The absence of the San Onofre nuclear plant does not create system-wide issues but does create local reliability issues because of transmission constraints that limit imports into the Los Angeles Basin and San Diego areas.

## The ISO's longer-term studies start with the CEC demand forecast.

- Every year the ISO publishes studies looking out 10 years and five years, as well as seasonal studies throughout the year to determine reliability needs and challenges.
- The ISO must comply with federal reliability standards and more rigorous California supplemental standards by being constantly prepared for the loss of a single generator and various combinations of transmission system outages.
- Study work started in 2011 is being augmented in the 2012-2013 transmission plan to address possible long-term outages of the San Onofre and Diablo Canyon nuclear power plants.

## Reliability issues arise in the LA Basin and San Diego without the San Onofre nuclear power plant.

- Los Angeles Basin and San Diego areas must have local generation to serve all consumers
- The ISO already plans for the outage of one San Onofre generating unit
- ISO must plan for the major contingencies where San Diego loses eastern transmission and the largest generator



## San Diego and the Los Angeles Basin are at risk of outages under required planning standards.

### San Diego

Without both San Onofre units -

Import capability ↓

Total gen	+3,048
Import capability	+2,100
Largest generation outage	- 603
Load	-4,882
<b>Shortfall</b>	<b>= - 337</b>

### Los Angeles Basin

Without both San Onofre Units –

Total gen ↓

Total gen *	+9,418
Import capability **	+10,771
Largest generation outage ***	- 498
Load	-19,931
<b>Shortfall</b>	<b>= -240</b>

#### Notes:

\* Installed capacity, some of which is not under contract.

\*\* Transmission import capability is subject to change, as system conditions change from year to year.

\*\*\*Largest generating unit outage after both San Onofre units are out of service .

## Restarting existing, permitted generation is essential.

### San Diego

Without SONGS and with  
Huntington Beach 3 & 4 –

Import capability ↑

Total gen	+ 3,048	
Import capability	+ 2,450	←
Largest generation outage	- 603	
Load	- 4,882	
<b>Surplus</b>	<b>= 13</b>	

### Los Angeles Basin

Without SONGS and with  
Huntington Beach 3 & 4 –

Total gen ↑

Total gen*	+ 9, 870	←
Import capability**	+10,771	
Largest generation outage	- 498	
Load	- 19,931	
<b>Surplus*</b>	<b>= 212</b>	

#### Notes:

\* Installed capacity, some of which is not under contract.

\*\* Transmission import capability is subject to change, as system conditions change from year to year.

\*\*\*Largest generating unit outage after both San Onofre units are out of service .

Conservation and demand response increase the margins.

Energy conservation and demand response will increase the margin.

		Existing DR MWs
SCE	All demand response programs	1,700 MW
	Southern Orange County and South of Lugo	506 MW
SDG&E	All demand response programs	104 MW

- SCE and SDG&E proposals for additional MWs are awaiting Commission approval.
- The Commission has authorized \$10 million for the Flex Alert campaign, a mass media program that informs the general public on how to reduce their energy usage and alerts them to reduce when CAISO needs additional reductions.
- The education effort includes outreach to disadvantaged communities and foreign language speakers.
- In the event of an emergency, procedures include notification of the California Emergency Management Agency and affected utilities who manage local communication and urgent response processes.

## Actions are underway to mitigate the risk of outages.

- Return Huntington Beach units 3 & 4 to service
- Accelerate Barre-Ellis transmission upgrade
- Complete Sunrise transmission line and related outage planning
- Fully fund Flex Alerts
- Fully utilize available demand response
- Seek additional military and public agency demand response
- Ensure that existing generation is well-maintained and available

# EXHIBIT 9

Message

**From:** Peevey, Michael R. [michael.peevey@cpuc.ca.gov]  
**Sent:** 10/13/2012 12:15:03 AM  
**To:** Ron.Litzinger@sce.com  
**Subject:** RE: Huntington Beach Synchronous Condensers

I re-confirm.

**From:** Ron.Litzinger@sce.com [Ron.Litzinger@sce.com]  
**Sent:** Friday, October 12, 2012 5:13 PM  
**To:** Michael Peevey  
**Subject:** Huntington Beach Synchronous Condensers

Mike,

Thanks for the call yesterday regarding the Huntington Beach Synchronous Condensers. The call was timely as Steve Berberich from CAISO had called me earlier about signing an agreement to backstop AES expenditures for the equipment while a Reliability Must Run (RMR) agreement is negotiated. We certainly share your concern about grid reliability and are willing to consider reasonable measures for Summer 2013 preparedness. I appreciated your sharing with me the your support and the support of the CPUC, CAISO and the Governor's Office.



We are concerned about AES inability thus far to get JP Morgan consent to the equipment under their tolling agreement. We appreciate CAISO's plan to overcome this obstacle, but remain concerned after review of the plan by our legal team and outside counsel.

We appreciate both your assurance on the call yesterday as well as your letter on September 4 for cost recovery should an RMR not be executed. Based on everyone's mutual desire for grid reliability, I am willing to instruct the team to sign the backstop agreement. I would appreciate re-confirmation of assurance of reasonable cost recovery.

Thanks Mike.

# EXHIBIT 10

## Goldthrite, Cody

**From:** Ron.Litzinger@sce.com  
**Sent:** Wednesday, June 12, 2013 4:34 PM  
**To:** Berberich, Steve  
**Cc:** Wallerstein Barry (bwallerstein@aqmd.gov); Felicia Marcus (felicia.marcus@waterboards.ca.gov); Edson, Karen; Peevey, Michael R. (michael.peevey@cpuc.ca.gov); Picker, Michael; Niggli, Michael; Weisenmiller, Robert@Energy (Robert.Weisenmiller@energy.ca.gov); stephen.pickett@sce.com  
**Subject:** Re: Loss of SONGS Task Force

Steve Pickett. for us

From: "Berberich, Steve" <SBerberich@caiso.com>  
To: "Peevey, Michael R. (michael.peevey@cpuc.ca.gov)" <michael.peevey@cpuc.ca.gov>, "Weisenmiller, Robert@Energy (Robert.Weisenmiller@energy.ca.gov)" <Robert.Weisenmiller@energy.ca.gov>, "Niggli, Michael" <mniggli@semprautilities.com>, "Ron.Litzinger@sce.com" <Ron.Litzinger@sce.com>, "Wallerstein Barry (bwallerstein@aqmd.gov)" <bwallerstein@aqmd.gov>, "Felicia Marcus (felicia.marcus@waterboards.ca.gov)" <felicia.marcus@waterboards.ca.gov>, "Picker, Michael" <Michael.Picker@gov.ca.gov>, "Edson, Karen" <KEdson@caiso.com>  
Date: 06/12/2013 10:28 AM  
Subject: Loss of SONGS Task Force

The governor has asked for a 90 day report on how reliability will be maintained with the permanent loss of SONGS. In discussions with Mike Peevey, Mike and I agreed that the best approach would be to form a task force from the PUC, CEC, ISO, SCE, SDG&E, SCAQMD and the Water Board to address a number of issues including the following:

- What mix of resources and assets would best meet reliability needs at the lowest cost and with least regrets for long term system planning?
- What near term, mid term and long term actions should be taken to replace San Onofre energy and voltage support?
- What conventional, distributed generation could be contingency permitted and sited?
- How can we solve the loss yet minimize the amount of replacement power emissions?
- What OTC plants should be moved on for repower and which ones should be considered for compliance date extensions?
- How can demand response, energy efficiency and other emerging technologies play a role in minimizing conventional generation solutions?

The ISO will take the lead in getting the task force coordinated and Neil Millar, our head of system planning, will be the lead on our end. Please let me know who from your organization will participate in the task force. We anticipate the initial meeting to take place in Folsom at the ISO with subsequent meetings in S. California. Finally, I propose that we have monthly meetings with Michael Picker of the governor's office and agency and utilities heads to monitor progress of the task force. As always, I welcome comments and alternative suggestions for moving forward.

Best regards,

Steve

\*\*\*\*\*  
\*\*\*

The foregoing electronic message, together with any attachments thereto, is confidential and may be legally

# EXHIBIT 11

Message

---

**From:** Picker, Michael [Michael.Picker@cpuc.ca.gov]  
**Sent:** 8/11/2014 6:09:42 PM  
**To:** 'Edson, Karen' [KEdson@caiso.com]  
**Subject:** RE: IID deliverability issue  
**Attachments:** image001.jpg; image002.jpg; image003.jpg; image004.jpg; image005.jpg; image006.jpg; image007.jpg

He still believes that you guys told him that there was adequate transmission capacity to move 500 MW of geothermal to the coast; and that (not clear that he actually asked the question) geothermal from Imperial is just what is needed to replace San Onofre.

I said that Kevin Kelley was wrong about how to reach the Imperial County deliverability and that the physics of the system made it unlikely that additional remove resources help with reliability on the coast without another set of transmission improvements that provide delivery (or VARS) at someplace near San Onofre.

He said that the didn't understand what a VAR was, and then went on to complain about the CPUC leg staff's testimony about economic impacts.

Commissioner Michael Picker

California Public Utilities Commission

505 Van Ness, Fifth Floor

San Francisco, CA 94102

(415) 703-2444

[Michael.Picker@cpuc.ca.gov](mailto:Michael.Picker@cpuc.ca.gov)

**From:** Edson, Karen [mailto:KEdson@caiso.com]  
**Sent:** Friday, August 08, 2014 4:22 PM  
**To:** Picker, Michael  
**Subject:** IID deliverability issue

Michael,

# EXHIBIT 12

State of California California Energy Commission

## Memorandum

To: Robert Weisenmiller, Chair Travel Date: Monday, July 8, 2013

From: Catherine Cross, Administrative Assistant Subject: Post SONGS Strategy Dinner

*Monday, July 8, 2013*

What: Post SONGS Strategy Dinner (*Attendees pay for their own food/drinks*)

Location: President Peevey has reserved a private room on the 3rd floor of the California Club 538 South Flower Street, Los Angeles, CA 90071

Time: 6:00 -9:00 pm (6:00 Drinks – 6:30 pm Dinner)

Contact: Kim Hubner, email: [khubner@caiso.com](mailto:khubner@caiso.com)

**Catherine Ohaegbu**

---

**Subject:** Post SONGS Strategy Dinner  
**Location:** California Club - 538 S. Flower St, Los Angeles - Private room on 3rd floor  
  
**Start:** Mon 7/8/2013 6:00 PM  
**End:** Mon 7/8/2013 9:00 PM  
**Show Time As:** Tentative  
  
**Recurrence:** (none)  
  
**Meeting Status:** Accepted  
  
**Organizer:** Berberich, Steve  
**Required Attendees:** mp1@cpuc.ca.gov; 'Mary Nichols'; bwallerstein@aqmd.gov; Weisenmiller, Robert@Energy (Robert.Weisenmiller@energy.ca.gov); Michael Picker; 'Marcus Felicia - State Water Resources Control Board (felicia.marcus@waterboards.ca.gov)'; 'michael.rossi@gov.ca.gov'

# EXHIBIT 13

Message

---

**From:** Picker, Michael [Michael.Picker@cpuc.ca.gov]  
**Sent:** 8/11/2014 6:09:42 PM  
**To:** 'Edson, Karen' [KEdson@caiso.com]  
**Subject:** RE: IID deliverability issue  
**Attachments:** image001.jpg; image002.jpg; image003.jpg; image004.jpg; image005.jpg; image006.jpg; image007.jpg

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He said that the didn't understand what a VAR was, and then went on to complain about the CPUC leg staff's testimony about economic impacts.

Commissioner Michael Picker

California Public Utilities Commission

505 Van Ness, Fifth Floor

San Francisco, CA 94102

(415) 703-2444

[Michael.Picker@cpuc.ca.gov](mailto:Michael.Picker@cpuc.ca.gov)

**From:** Edson, Karen [mailto:KEdson@caiso.com]  
**Sent:** Friday, August 08, 2014 4:22 PM  
**To:** Picker, Michael  
**Subject:** IID deliverability issue

Michael,

Below is Mary McDonald's email to Martha Guzman regarding deliverability from IID. As the email indicates, Kevin Kelley misunderstood the issue we tried to clarify in this document -- <http://www.caiso.com/Documents/TechnicalAddendum-ImperialCountyDeliverability.pdf> -- and made incorrect representations to the Legislature. Let me know if you have questions.

Karen Edson

**From:** McDonald, Mary  
**Sent:** Friday, August 08, 2014 4:09 PM  
**To:** Martha Guzman-Aceves  
**Cc:** Edson, Karen; Layton, Katie  
**Subject:** FW: SB 1139

Hi Martha,

At this week's Assembly Appropriations Committee hearing on SB 1139 (Hueso), Kevin Kelley the General Manager of Imperial Irrigation District stated that a recent ISO technical addendum finds that 462 MW of export capacity available from IID into the ISO ( <http://www.caiso.com/Documents/TechnicalAddendum-ImperialCountyDeliverability.pdf>). However, that 462 MW that he referenced is being used to import existing generation from IID into the ISO (Maximum Import Capability, MIC). As explained in the addendum, transmission additions approved in the ISO's 2013-14 transmission planning cycle will enable future additional amount of deliverability for the overall Imperial zone of up to 1,000 MW. Based on a review of the CPUC's approved power purchase agreements we have determined that all of the 1,000 MW is expected to be used by generation that is already moving forward as a result of having CPUC approval and are connecting directly to the ISO. I should also note at the request of the CPUC/CEC we are studying a scenario that would see an increase of 2,500 MW from the IID zone. Finally, also as part of this year's transmission plan we are also exploring how to achieve additional deliverability from the Imperial zone part of the 2014-15 plan. We are exploring options that include relatively low cost transmission operation changes, upgrades and re-purposing that could potentially provide several hundred MWs of additional deliverability from the Imperial zone. This afternoon, Karen Edson the ISO's VP of Policy and Client Services spoke with Kevin Kelley about his statement in Assembly Appropriations Committee and they discussed the ISO's addendum and he now has a clearer understanding.

The following is an excerpt of what Kelley said at the Assembly Appropriations Committee Hearing:

Kevin Kelley:

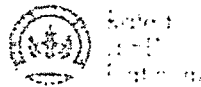
*"In past committees, it's been testified by the regulators that IID has zero export capacity into the ISO system. I listened to that repeatedly and so I went to the ISO to correct the record. And I commend to you this technical*

*addendum which was published to the ISO website last week that places the current export capacity from IID to the ISO system at 462 MW. That's today, and that's without building any new transmission. The closing thought I'd like to leave you with is it's been said that this bill if it were to be enacted does nothing for the Salton Sea. It's true this bill is silent on the Salton Sea, but this bill is looked at as a first step in something like a self-help regiment to the Salton Sea. It serves our region's interest, it serves the public's interest, and the Salton Sea can't wait much longer."*

Please feel free to contact me with any questions.

Have a great weekend

Mary



Mary McDonald

Director of State Government Affairs

250 Outcropping Way

Folsom, CA 95630

phone: (916) 802-3576 | fax: (916) 608-5070



*Please consider the environment before printing this email*

PRA1386-000774

# EXHIBIT 14

Message

From: Weisenmiller, Robert@Energy [Robert.Weisenmiller@energy.ca.gov]  
on behalf of Cross, Catherine@Energy [Catherine.Cross@energy.ca.gov]  
Sent: 6/10/2014 12:32:11 AM  
To: Nichols, Mary D. @ARB [mnichols@arb.ca.gov]; Scott, Janea@Energy [janea.scott@energy.ca.gov]; Steve Berberich [sberberich@caiso.com]; Michael R. Peevey [mp1@cpuc.ca.gov]; michael.picker@cpuc.ca.gov; Rechtschaffen, Cliff [cliff.rechtschaffen@gov.ca.gov]; Wallerstein Barry (bwallerstein@aqmd.gov) [bwallerstein@aqmd.gov]; Marcus, Felicia@Waterboards [Felicia.Marcus@waterboards.ca.gov]; Oglesby, Rob@Energy [Rob.Oglesby@energy.ca.gov]; Barker, Kevin@Energy [Kevin.Barker@energy.ca.gov]; brian.turner@cpuc.ca.gov  
CC: Stewart, Shannon@ARB [snstewart@arb.ca.gov]; Lorton, Michele@Energy [michele.lorton@energy.ca.gov]; Darlene Stasky (dstasky@caiso.com) [dstasky@caiso.com]; Nuria Gonzalez [nuria.gonzalez@cpuc.ca.gov]; Lynn Sadler [ls1@cpuc.ca.gov] [ls1@cpuc.ca.gov]; Juliane Banks [juliane.banks@cpuc.ca.gov]; Natalie Murphey [Natalie.Murphey@gov.ca.gov] [Natalie.Murphey@gov.ca.gov]; Denise Whitcher (dwhitcher@aqmd.gov) [dwhitcher@aqmd.gov]; Barrios, Alicia@Waterboards [Alicia.Barrios@Waterboards.ca.gov]; Kessler, Rebecca@Energy [rebecca.kessler@energy.ca.gov]; Ernst, Laura@Energy [laura.ernst@energy.ca.gov]  
Subject: SONGS/California Reliability Meeting

When: Tuesday, June 17, 2014 3:15 PM-5:00 PM (GMT-08:00) Pacific Time (US & Canada).

Where: Mary Nichols' Residence, [Redacted]

Note: The GMT offset above does not reflect daylight saving time adjustments.

\*~\*~\*~\*~\*~\*~\*~\*~\*~\*

***Please note that meeting time/information has changed – see below:***

***Meeting will commence at approximately 3:15 pm and is being held at Mary Nichol's residence (located approximately 30 minutes from Burbank/Bob Hope Airport.)***

***Dinner will be catered.***

Google map from Burbank Airport to [Redacted]

Google map from [Redacted] to Burbank Airport: [Redacted]

After meeting:

***Traveling from Burbank to Sacramento:***

***Southwest Flight 146 departs Burbank @ 9:10 pm/arrives Sacramento 10:20 pm***

***Traveling from Burbank to Oakland:***

***Southwest Flight 660 departs Burbank @ 8:55 pm/arrives Oakland 10:00 pm***

**Participants:**

**Air Resources Board**

**Mary Nichols**

**California Energy Commission**

**Rob Oglesby**

Janea Scott  
Bob Weisenmiller  
California ISO  
Steve Berberich

California Public Utilities Commission  
Michael Peevey  
Michael Picker

Governor's Office  
Cliff Rechtschaffen

South Coast Air Quality Management District  
Barry Wallerstein

State Water Resources Control Board  
Felicia Marcus (unable to attend)

# EXHIBIT 15

Appointment

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From: Ann Davey/SCE/EIX [Ann.Davey@sce.com] <sup>1</sup>  
To: Ann Davey/SCE/EIX [Ann.Davey@sce.com]; fohreraj@gmail.com; LEGIONARY44BC@ICLOUD.COM; <sup>2</sup>  
<sup>3</sup> mp1@cpuc.ca.gov; Stephen E Pickett/SCE/EIX [Stephen.Pickett@sce.com]  
CC: nuria.gonzalez@cpuc.ca.gov  
Subject: Dinner Meeting (Mike Peevey, Al Fohrer, Bob Foster & Steve Pickett)  
Location: California Club, 538 South Flower, Los Angeles (Dinner will be served in the 3rd Floor Bar; Reservations under "Al Fohrer")  
Start: 12/14/2013 2:00:00 AM  
End: 12/14/2013 4:00:00 AM  
Show Time As: Tentative  
Recurrence: (none)

# EXHIBIT 16

**Sent:** Monday, April 27, 2015 9:23 AM  
**To:** ORDONEZ Jorge; Dalley, Bryce  
**Subject:** RE: PacifiCorp to Explore Becoming Transmission at CALISO

Thanks Jorge – to get you started, here are some links where you will be able to obtain a FAQs on our study to join the CAISO and also the MOU between PacifiCorp and CAISO.

<http://www.pacificorp.com/about/newsroom/2015nrl/study-joining-california-iso.html>

<http://www.caiso.com/informed/Pages/StakeholderProcesses/PacifiCorp.aspx>

I think it will provide most of what you're looking for. Please take a look and let us know what gaps we can help fill.

Thanks,  
Natasha

---

**From:** ORDONEZ Jorge [<mailto:jorge.ordonez@state.or.us>]  
**Sent:** Monday, April 27, 2015 8:46 AM  
**To:** Dalley, Bryce  
**Cc:** Siores, Natasha  
**Subject:** PacifiCorp to Explore Becoming Transmission at CALISO

Hi Bryce,

I called you this morning and also left a voicemail to Natasha.

I've been tasked to provide the PUC chairman with an update about PacifiCorp's exploration to become a transmission owner at the CALISO. I plan to prepare something very high level (a very few number paragraphs). Could you please help me describing the following?:

General description of what is the project about;  
The filing requirements from the PUC that PacifiCorp might have to provide in the case of moving forward with this.

Please give me a call or stop by my desk. Your secretary told me that you are in Salem today.

Thanks!

Jorge

Jorge Ordonez

Senior Financial Economist  
Energy Resources and Planning  
Oregon Public Utility Commission  
[jorge.ordonez@state.or.us](mailto:jorge.ordonez@state.or.us)

**From:** [Siores, Natasha](#)  
**To:** [ORDONEZ Jorge](#); [Dalley, Bryce](#)  
**Subject:** RE: PacifiCorp to Explore Becoming Transmission at CALISO  
**Date:** Monday, April 27, 2015 2:17:12 PM

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Jorge,

I asked the legal team working on this and they indicated that our initial review indicated that we would likely need to seek approval to transfer operation of public utility property and the performance of public utility services to the ISO under ORS §757.480. I hope this is helpful for your write-up.

Thanks,  
Natasha

---

**From:** ORDONEZ Jorge [<mailto:jorge.ordonez@state.or.us>]  
**Sent:** Monday, April 27, 2015 10:04 AM  
**To:** Siores, Natasha; Dalley, Bryce  
**Subject:** RE: PacifiCorp to Explore Becoming Transmission at CALISO

Thanks Natasha for the links!

Could you please let me know what are the filing requirements from the PUC that PacifiCorp might have to provide in the case of moving forward with this? I understand that you are in the preliminary stages of this, but I suppose that you may have entertain very superficially this matter. That would be very helpful.

Jorge

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**From:** Siores, Natasha [<mailto:Natasha.Siores@pacificorp.com>]  
**Sent:** Monday, April 27, 2015 9:23 AM  
**To:** ORDONEZ Jorge; Dalley, Bryce  
**Subject:** RE: PacifiCorp to Explore Becoming Transmission at CALISO

Thanks Jorge – to get you started, here are some links where you will be able to obtain a FAQs on our study to join the CAISO and also the MOU between PacifiCorp and CAISO.

<http://www.pacificorp.com/about/newsroom/2015nrl/study-joining-california-iso.html>

<http://www.caiso.com/informed/Pages/StakeholderProcesses/PacifiCorp.aspx>

I think it will provide most of what you're looking for. Please take a look and let us know what gaps we can help fill.

**From:** Apperson, Erin  
**To:** ORDONEZ Jorge  
**Subject:** RE: California ISO- PacifiCorp meeting with Commissioner Savage of 9/14/2015  
**Date:** Wednesday, September 23, 2015 4:44:55 PM

---

I just confirmed with Bryce that it was in fact Phil Pettingill (contact info below).

---

**From:** ORDONEZ Jorge [mailto:jorge.ordonez@state.or.us]  
**Sent:** Wednesday, September 23, 2015 3:05 PM  
**To:** Apperson, Erin  
**Subject:** RE: California ISO- PacifiCorp meeting with Commissioner Savage of 9/14/2015

I don't know. I was not able to understand his name (he spoke too quickly). The only think I know is that he was a man.

---

**From:** Apperson, Erin [mailto:Erin.Apperson@pacificorp.com]  
**Sent:** Wednesday, September 23, 2015 3:04 PM  
**To:** ORDONEZ Jorge  
**Subject:** RE: California ISO- PacifiCorp meeting with Commissioner Savage of 9/14/2015

Was it Phil Pettingill? [PPettingill@caiso.com](mailto:PPettingill@caiso.com)

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**From:** ORDONEZ Jorge [mailto:jorge.ordonez@state.or.us]  
**Sent:** Wednesday, September 23, 2015 3:03 PM  
**To:** Apperson, Erin  
**Subject:** RE: California ISO- PacifiCorp meeting with Commissioner Savage of 9/14/2015

Thanks Erin. One piece is missing: what is the name of the CAISO gentleman present in the meeting with Commissioner Savage?

Regards,

Jorge

---

**From:** Apperson, Erin [mailto:Erin.Apperson@pacificorp.com]  
**Sent:** Wednesday, September 23, 2015 3:00 PM  
**To:** ORDONEZ Jorge  
**Subject:** RE: California ISO- PacifiCorp meeting with Commissioner Savage of 9/14/2015

Jorge,

Apologies for the delay on responding to this request. I've received the following names for contacts for you at the CPUC: Jason Ortego, 415-703-4773, [jason.ortego@cpuc.ca.gov](mailto:jason.ortego@cpuc.ca.gov); and Robert Strauss, [Robert.strauss@cpuc.ca.gov](mailto:Robert.strauss@cpuc.ca.gov).

You had also asked about the contact information for the ISO: Stacy Crowley ([scrowley@caiso.com](mailto:scrowley@caiso.com)).

Lastly, you asked about some of the industry meeting occurring that are dealing with the CAISO.

- See here for a link to the CAISO Stakeholder Symposium:  
<https://www.caiso.com/informed/Pages/MeetingsEvents/PublicForums/Default.aspx>. It appears that Commissioner Savage is on a panel on October 22.
- See here for a link to the CREPC-SPSC-WIRAB Meeting:  
<http://westernenergyboard.org/2015/09/joint-crepc-spsc-wirab-meeting/>
- PacifiCorp and the CAISO Markets Outreach meeting is scheduled for November 20 in Portland, but I do not currently have any additional information on that meeting

Erin Apperson

Manager, Regulatory Affairs

| 503-813-6642 office | 206-406-0042 cellular | [erin.apperson@pacificorp.com](mailto:erin.apperson@pacificorp.com)

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**From:** ORDONEZ Jorge [<mailto:jorge.ordonez@state.or.us>]

**Sent:** Tuesday, September 15, 2015 5:20 PM

**To:** Apperson, Erin

**Cc:** Siores, Natasha

**Subject:** California ISO- PacifiCorp meeting with Commissioner Savage of 9/14/2015

Erin,

In yesterday's meeting Bryce suggested that I should contact you to follow up on a couple of things. Could you please:

Send the contact information of the person of the California ISO in the meeting?

Send the contact information of the persons at the California PUC who deal with the California ISO aspects of its IOUs? To have context, the person of the California ISO informally mentioned that they are around four California PUC Staff members.

Regards,

Jorge

Jorge Ordonez

Senior Economist

Energy Resources and Planning

Public Utility Commission of Oregon

[jorge.ordonez@state.or.us](mailto:jorge.ordonez@state.or.us)

Phone: 503-378-4629

Fax: 503-373-7752

# EXHIBIT 17

**Senate Bill No. 350**

\_\_\_\_\_

Passed the Senate September 11, 2015

\_\_\_\_\_  
*Secretary of the Senate*

\_\_\_\_\_

Passed the Assembly September 11, 2015

\_\_\_\_\_  
*Chief Clerk of the Assembly*

\_\_\_\_\_

This bill was received by the Governor this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015, at \_\_\_\_\_ o'clock \_\_\_\_\_M.

\_\_\_\_\_  
*Private Secretary of the Governor*

## Senate Bill No. 350

### CHAPTER 547

An act to add Section 44258.5 to the Health and Safety Code, to amend Section 1720 of the Labor Code, to amend Sections 25310 and 25943 of, and to add Sections 25302.2 and 25327 to, the Public Resources Code, and to amend Sections 359, 399.4, 399.11, 399.12, 399.13, 399.15, 399.16, 399.18, 399.21, 399.30, 454.55, 454.56, 701.1, 740.8, 9505, and 9620 of, to amend and repeal Sections 337 and 352 of, to add Sections 237.5, 365.2, 366.3, 454.51, 454.52, 740.12, 9621, and 9622 to, to add Article 17 (commencing with Section 400) to Chapter 2.3 of Part 1 of Division 1 of, to add and repeal Article 5.5 (commencing with Section 359.5) of Chapter 2.3 of Part 1 of Division 1 of, and to repeal Article 5 (commencing with Section 359) of Chapter 2.3 of Part 1 of Division 1 of, the Public Utilities Code, relating to energy.

[Approved by Governor October 7, 2015. Filed with  
Secretary of State October 7, 2015.]

#### LEGISLATIVE COUNSEL'S DIGEST

SB 350, De León. Clean Energy and Pollution Reduction Act of 2015.

(1) Under existing law, the Public Utilities Commission (PUC) has regulatory jurisdiction over public utilities, including electrical corporations, community choice aggregators, and electric service providers, while local publicly owned electric utilities are under the direction of their governing boards. Existing law imposes various regulations on public utilities and local publicly owned electric utilities. Existing law establishes the California Renewables Portfolio Standards (RPS) Program, which is codified in the Public Utilities Act, with the target to increase the amount of electricity generated per year from eligible renewable energy resources to an amount that equals at least 33% of the total electricity sold to retail customers per year by December 31, 2020. Under existing law, a violation of the Public Utilities Act is a crime.

This bill would require that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50% by December 31, 2030, as provided. The bill would make other revisions to the RPS Program and to certain other requirements on public utilities and publicly owned electric utilities.

Because certain of the above provisions are codified in the Public Utilities Act, this bill would impose a state-mandated local program by expanding the definition of a crime or establishing a new crime.

(2) Existing law requires the PUC to identify cost-effective electricity efficiency savings and establish efficiency targets for an electrical corporation to achieve, and to identify cost-effective natural gas efficiency