

CALIFORNIA ENERGY COMMISSION1516 Ninth Street
Sacramento, California 95814Main website: www.energy.ca.gov

In the matter of,)	Docket No. 13-IEP-1D
)	
<i>2013 Integrated Energy Policy Report</i>)	WORKSHOP
<i>(2013 IEPR)</i>)	RE: Electricity Infrastructure
_____)	Planning/Reliability

Joint Workshop on Electricity Infrastructure Issues Resulting from SONGS Closure

As part of the *2013 Integrated Energy Policy Report (2013 IEPR)*, the California Energy Commission's IEPR Lead Commissioner will jointly conduct a workshop with the California Public Utilities Commission (CPUC) on the challenges in planning electricity infrastructure in Southern California in light of the retirement of both units at San Onofre Nuclear Generating Station (SONGS). Commissioner Andrew McAllister oversees the *2013 IEPR*. Other commissioners from the Energy Commission and the CPUC, and executives from the California Air Resources Board, the California Independent System Operator, and other agencies will also attend.

MONDAY, JULY 15, 2013

Beginning at 9:30 a.m.

The Harry and Yvonne Lenart Auditorium
Fowler Museum at UCLA, North Campus
308 Charles E. Young Dr. North
Los Angeles, California 90095
(Wheelchair Accessible)

For directions and parking, go to www.fowler.ucla.edu/visit

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The information reviewed in this workshop will contribute to the joint agency effort to respond to Governor Brown's 90-day directive to develop options to satisfy reliability needs without SONGS. Following the workshop, the IEPR Lead Commissioner will determine the extent to which this issue requires further examination in the *2013 IEPR* and the extent to which the various ongoing efforts among the participating agencies are sufficient. The CPUC commissioners assigned to various proceedings will determine how they will address these topics within existing or in new proceedings.

Agenda

The purpose of this workshop is to receive presentations regarding the implications of the closure of SONGS for electricity infrastructure needs from studies recently completed by state government agencies, balancing authorities, and other interested organizations. The *2009 IEPR* and the *2011 IEPR* acknowledged the need for dispatchable fossil resources to satisfy a portion of system needs despite ongoing efforts to meet the state's 33 percent renewable energy by 2020 mandate. Such resources are more likely to be required to satisfy local capacity requirements and integrate intermittent renewable generation than to simply meet annual electrical energy demand by end users. Southern California represents a unique situation: substantial once-through cooling (OTC) capacity that must be replaced to satisfy state policies, but also situated in an air shed with the nation's tightest criteria pollutant permitting regime. The *2012 IEPR Update* highlighted the need for such studies to be extended to address the possible need for replacement energy and capacity as a result of the SONGS outage and subsequent closure. Several studies have recently been completed that provide insights about the capacity additions in Southern California that are necessary to satisfy reliability requirements.

Technical staff of state government agencies, balancing authorities, and other experts will provide results for several electricity infrastructure planning studies. A panel of recognized stakeholder organizations will provide reactions to these presentations.

The workshop will discuss:

- The results of CAISO studies of the amount of capacity that must be replaced due to (a) the loss of SONGS, and (b) the OTC policy-induced retirement of fossil facilities, in order to meet local capacity area requirements in Los Angeles and San Diego.
- The extent to which other options: (a) demand side policy initiatives, and (b) transmission (new lines, upgraded system elements or undersea cables augmenting the existing transmission system) are feasible and timely.
- Analyses of options studied by Southern California Edison and San Diego Gas & Electric for providing the capacity needed for reliability, meeting customer energy needs at the lowest possible cost, and assuring transmission system reliability.
- The results of several studies recently completed in order to satisfy the requirements of Assembly Bill 1318 (V. Manuel Perez, Chapter 285, Statutes of 2009). The bill requires determination of the amount of fossil capacity needed, the role that demand-side resources might play in reducing such needs, and identification of constraints on air permitting for such capacity, in the South Coast Air Basin. The South Coast Air Basin includes the majority of the service area of the Los Angeles Department of Water and Power, and large portions of the California Independent System Operator balancing authority area.
- How the CPUC is providing procurement authorization to investor-owned utilities to enable SONGS and/or OTC replacement in the face of uncertainties.
- The extent to which the electrification of combustion processes is likely to be pursued by South Coast Air Quality Management District (SCAQMD) in its

planning to meet ambient air quality standards, thus increasing the pressure to plan, procure, permit, and construct reliable sources of electric energy.

This workshop will not address issues of safety, storage and transportation of spent fuel, or seismic studies for each of the two nuclear plants in California. A 2013 IEPR workshop for those topics was held on June 19, 2013. The written comment date for that workshop is July 3, 2013.

Background

Public Resources Code section 25301 directs the Energy Commission to regularly assess all aspects of energy demand and supply. These assessments provide the foundation for analysis and recommendations to the Governor, Legislature, and other agencies for energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. The Energy Commission has studied the issues of OTC impact mitigation and constraints on fossil power plant development in several recent IEPR proceedings. The 2011 IEPR¹ stated:

Reducing the impacts on the marine and estuarine environments from the use of OTC technologies in older power plants and the scarcity of emission offsets for new fossil power plants are two of the most important challenges facing the electricity generating industry. To reduce impacts, many of the owners of California's aging power plants are choosing to retire rather than make capital investments in the facility, causing a need for new capacity to satisfy peak demand and appropriate reserves. However, licensing new power plants is difficult, given the scarcity and corresponding cost of offsets required to avoid harmful impacts on air quality. Even repowering at the site of an aging power plant has its challenges. So, while policies to reduce the use of OTC are increasing the demand for new power plants, air quality constraints are restricting the development of fossil fuel power plants. This complexity is especially apparent in those areas of the state where existing air quality fails to satisfy ambient standards. The South Coast Air Basin, for example, is experiencing the full effects of these opposing forces. To satisfy local capacity requirements (LCR) and help integrate variable renewable generation, the region will have to replace some of its older capacity with dispatchable, flexible fossil power plants when existing OTC power plants retire. The 2009 *Integrated Energy Policy Report* discussed the South Coast Air Basin's situation in detail and made recommendations to address the challenges, but uncertainties continue. (2011 IEPR, Chapter 9)

Building off this problem statement, the 2012 *IEPR Update* noted that the two nuclear units at SONGS had gone offline in January 2012 and that the possible need to replace these facilities exacerbates the pre-existing tension between OTC and air quality policies.

¹ http://www.energy.ca.gov/2011_energypolicy/index.html

Noting the institutional coordination challenges in resolving this topic, the *2012 IEPR Update*² said:

Southern California has more different decision makers overseeing various pieces of the electricity infrastructure than any other region in California. Southern California Edison (SCE) is the largest single utility in the region and is regulated by the California Public Utilities Commission (CPUC). There are also many other smaller municipal utilities located within the Southern California portion of the California Independent System Operator (California ISO) balancing authority area that are governed by their own local governing boards with their own methods for satisfying statewide laws or energy policies. The Los Angeles balancing authority area, which is operated independently of the California ISO, includes the nation's largest municipal utility, the Los Angeles Department of Water and Power (LADWP), and two other small public utilities. SCAQMD is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties and faces more challenges any other local air district in California in achieving compliance with the federal Clean Air Act. The agency has substantial authority to implement control measures that shift fuel-based combustion processes into alternative technologies that increase demand for electricity. SCAQMD and the California Air Resources Board (ARB) have begun an unprecedented visioning effort to coordinate their development of the next *State Implementation Plan* for stationary and mobile emission sources, and to address both air emission standards and GHG goals.³ Finally, many of the generating plants required to comply with the SWRCB's OTC policy are located in Southern California. (*2012 IEPR Update*, Chapter 4)

Over the course of the last several IEPR proceedings, some progress in completing necessary studies has been achieved. Collectively, however, they do not examine all of the options and policy preferences, thus considerable analytic uncertainties remain. The extensive consequences of the SONGS outage/closure illustrates the extent to which unexamined contingencies can reveal previously unforeseen vulnerabilities. This workshop will provide the results of new studies, undertaken since the SONGS closure, that reduce some uncertainties, which will help decision makers decide how to address the added complications of SONGS closure in addition to the previous challenges of OTC mitigation.

² http://www.energy.ca.gov/2012_energypolicy/index.html

³ Air Resources Board and South Coast Air Quality Management District, *Vision for Clean Air: A Framework for Air Quality and Climate Planning*, <http://www.aqmd.gov/aqmp/2012aqmp/>.

Public Comment

Oral Comments. The IEPR Lead Commissioner will accept oral comments during the workshop. Comments may be limited to three minutes per speaker. Any comments will become part of the public record in this proceeding.

Written Comments. Written comments should be submitted to the Dockets Unit by **July 29, 2013**. Written comments will also be accepted at the workshop, however, the Energy Commission may not have time to review them before the conclusion of the workshop. All written comments will become part of the public record of this proceeding. Additionally, written comments may be posted to the Energy Commission's website.

The Energy Commission encourages comments by e-mail. Please include your name and any organization name. Comments should be in a downloadable, searchable format such as Microsoft® Word (.doc) or Adobe® Acrobat® (.pdf). Please include the docket number 13-IEP-1D and indicate Electricity Infrastructure Issues in the subject line. Send comments to **docket@energy.ca.gov** and copy the technical lead staff at **Mike.Jaske@energy.ca.gov**.

If you prefer, you may send a paper copy of your comments to:

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 13-IEP-1D
1516 Ninth Street
Sacramento, CA 95814-5512

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Media inquiries should be sent to the Media and Public Communications Office at (916) 654-4989, or by email at mediaoffice@energy.ca.gov.

If you have questions on the technical subject matter of this meeting, please contact Mike Jaske at (916) 654-4777 or by email at Mike.Jaske@energy.ca.gov. For general questions regarding the IEPR proceeding, please contact Lynette Green, IEPR project manager, at (916) 653-2728 or by email at Lynette.Green@energy.ca.gov.

The service list for the 2013 *IEPR* is handled electronically. Notices and documents for this proceeding are posted to the Energy Commission website at [www.energy.ca.gov/2013_energypolicy/index.html]. When new information is posted, an e-mail will be sent to those on the energy policy e-mail list server. We encourage those who are interested in receiving these notices to sign up for the list server through the website at www.energy.ca.gov/listservers/index.html.

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Availability of Documents

Documents and presentations for this meeting will be available online at:
www.energy.ca.gov/2013_energypolicy/index.html.

Date: June 26, 2013

ANDREW MCALLISTER, Ph.D.
Lead Commissioner
2013 Integrated Energy Policy Report

Mail Lists: [energypolicy](#), [electricity](#)