<table>
<thead>
<tr>
<th><strong>Docket Number:</strong></th>
<th>00-AFC-14C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Title:</strong></td>
<td>El Segundo Power Redevelopment Project Compliance</td>
</tr>
<tr>
<td><strong>TN #:</strong></td>
<td>200197</td>
</tr>
<tr>
<td><strong>Document Title:</strong></td>
<td>August 13 2013 Informational Hearing Slides</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>PDF'd version of the Powerpoint slides shown at the August 13, 2013 Informational Hearing for the El Segundo Amendment</td>
</tr>
<tr>
<td><strong>Filer:</strong></td>
<td>Paul Kramer</td>
</tr>
<tr>
<td><strong>Organization:</strong></td>
<td>California Energy Commission</td>
</tr>
<tr>
<td><strong>Submitter Role:</strong></td>
<td>Committee</td>
</tr>
<tr>
<td><strong>Submission Date:</strong></td>
<td>8/14/2013 11:10:34 AM</td>
</tr>
<tr>
<td><strong>Docketed Date:</strong></td>
<td>8/14/2013</td>
</tr>
</tbody>
</table>
Energy Commission Headquarters, Sacramento
Purpose of Today’s Proceedings

- Inform members of the public about the proposed amendment and the Energy Commission’s review process.

  - El Segundo Energy Center – Petition to Amend
    - Proposed modifications include the demolition and replacement of two once-through-cooled natural gas-fired utility boiler units, Units 3 and 4, with one new combined cycle generator (Unit 9), one steam turbine generator (Unit 10) and two simple-cycle gas turbines (Units 11 and 12). This change will eliminate the use of ocean water for once-through cooling at the facility.

- You will be able to learn about the proposed amendment, ask questions and provide comments.

- You will also be informed of the various ways you can participate in the Energy Commission’s power plant licensing process.
Today’s Agenda

3:00 p.m. Site Visit—bus tour to site

5:00 p.m. Presentations and Discussion

- Commissioners’ Opening Remarks
- Hearing Adviser—Energy Commission’s role
- Applicant—project details
- Energy Commission Staff—environmental review process
- Staff’s Issues Identification Report
- Staff’s proposed schedule for the licensing process
- Public Adviser’s Office—opportunities for public participation
- Public Questions and Comments
Energy Commission’s Role

- Energy Commission has permitting authority over thermal power plants that are 50 megawatts or greater.

- The Commission is the lead state agency for California Environmental Quality Act (CEQA) review and ongoing compliance.

- Energy Commission staff is an independent party in the proceeding. Staff will prepare an independent evaluation of the environmental, engineering, and public health/safety aspects of the proposed amendment.
There are five members of the Energy Commission. The Commission has appointed Commissioners Douglas (Presiding Committee Member) and Scott (Associate Committee Member) to oversee the licensing process for this amendment.

Following staff review, the Committee will issue a Presiding Member’s Proposed Decision (PMPD) that makes a recommendation to the full Commission to approve, reject, or change the proposed amendment.
EX PARTE RULE

- All decisions made in this case will be made solely on the basis of the public record.
- No off-the-record contacts concerning substantive matters are permitted to take place between interested parties and the Commissioners, their advisers, this Committee, or the Hearing Officer.
EX PARTE RULE

- Contacts between interested parties and the members of the Committee regarding a substantive matter must occur in a public forum or in a writing distributed to all the parties and made available to the public.

- Purpose: to provide full disclosure to all participants of any information that may be used as a basis for the future Decision on this amendment.
CEC Site Informational Meeting – August 13, 2013

El Segundo Energy Center

Petition to Amend

El Segundo Power Facility Modification – ESEC Petition to Amend
Our Strength in Numbers

284  Fortune 300 and S&P 500 Index company.

1  Largest Independent Power Producer in the US

2M  Serving more than 2 million customers with NRG retail brands

47K  Generating more than 47,000 MW of global, diverse energy

37M  Providing enough generation capacity to power 37 million homes

50%  Reduced emissions by nearly ½* for a cleaner NRG

*Since 2000
Full Suite of Innovative and Efficient Energy Solutions

Diverse generation resources

Combined heat & power systems

Distributed solar and micro wind installations

Electric vehicle charging infrastructure

Regulatory & Policy Collaboration

Retail Provider & Utility Partner

Smart energy solutions

District energy systems & backup generation

Partner in tailoring energy solutions for our customers
NRG’s Diverse Solar Projects

Producing clean, renewable electricity for utility, municipal, and commercial customers

- Providing technical planning, development, construction, financing and operations of multi-technology solar generation assets
- Producing clean, renewable electricity for utility, municipal and commercial customers
- Constructing the world’s largest solar thermal facility in California’s Mojave Desert

Agua Caliente
Renewable Energy World 2012 Winner
Solar Power Generation USA
2012 PV Project of the Year

Ivanpah
Solar Power Generation USA
2012 CSP Project of the Year
Original Units 1 and 2 (1950s) and Unit 3 and 4 (1960s) = 1020 MW net/≈1052 gross
El Segundo Energy Center:
Future is Here

- Licensed in 2010, ESEC is first plant of its kind permitted in CA; 560 MW Plant that is fast-start (10 min) and air-cooled with combined-cycle efficiency
- Retires aging steam boilers, eliminating ~400 MGD of OTC
- Ideal for LA Basin Local Capacity Region (LCR) support and renewable integration
- On line August 1, 2013
El Segundo Energy Center: Today
El Segundo Energy Center: Improvements for Tomorrow

Existing View

Future View
El Segundo Energy Center:
Improvements for Tomorrow

Proposed Admin/O&M Building
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2013</td>
<td>Title V major modification and PTA filed</td>
</tr>
<tr>
<td>Sept 2014</td>
<td>Anticipated Decision on ESEC PTA</td>
</tr>
<tr>
<td>Dec 2015</td>
<td>Unit 4 OTC Policy compliance date</td>
</tr>
<tr>
<td>May 2016</td>
<td>Demolition complete/start of construction</td>
</tr>
<tr>
<td>June 2018</td>
<td>Commissioning complete/Commercial Online</td>
</tr>
</tbody>
</table>
El Segundo Power Facility
Modification: 3D Model
El Segundo Power Facility
Modification: Overview

- ~325 MW GE 7FA Fast-Start Combined Cycle Unit ("CC-Fast")
- (2) 55 MW Rolls Royce Trent 60s Advanced Simple Cycle Gas Turbines
- Fast Start (10 min, 75% load) & Air Cooled
- Responsive to CAISO Long Term Procurement Plan for 1200 MW in West LA Basin
- Integrates Renewables
- Meets Ambient Air Quality Standards
• Meets CEC Objectives for Brownfield Development

• Utilizes existing Infrastructure: Transmission, Natural Gas, Water

• Replaces Existing Steam Boiler Units 3 & 4, meeting State’s OTC Policy

• Further Plant’s Conversion to Reclaim Water Use for Industrial Purposes

• Further Plant’s Zero Liquid Discharge Goals
• Improve Beach/Bike Path Access from 45th Street

• Continue Improvement of Visual Enhancements along Vista Del Mar and 45th Street

• Modern Admin Building located North End of Tank Farm
SCAQMD/EPA Permitting

- Title V Modification
- Emission Offsets Analysis
- Air Quality Impact Analysis
- Health Risk Assessment
- PSD Applicability/Analysis
- Acid Rain permit application
1. Committee must determine whether impacts will change as a result of the amendment

2. Staff Discovery and Analyses
   - Issues Identification
   - Data Requests
   - Public Workshops
   - Preliminary Staff Assessment (PSA)
   - Final Staff Assessment (FSA)

3. Committee Evidentiary Hearing and Decision
   - Evidentiary Hearings on FSA
   - Presiding Member’s Proposed Decision (PMPD) and public comments
   - PMPD hearing and Commission decision
Energy Commission Staff’s Role

- Determine if the project, as modified, will remain in compliance with applicable laws, ordinances, regulations, and standards.
- Staff will perform an independent review the project for environmental impacts and propose mitigation as necessary.
Discovery and Analysis Process

- Determine if the proposed amendment complies with Laws, Ordinances, Regulations, Standards (LORS)
- Conduct engineering and environmental analysis
  - identify issues;
  - identify environmental impacts and mitigation measures;
  - recommend conditions of certification.
- Facilitate public and agency participation
- Staff products: Preliminary Staff Assessment (PSA) and Final Staff Assessment (FSA)
- Make recommendations to the Committee
Agency Coordination

- Energy Commission staff work closely with other governmental agencies, for example:
  - City of El Segundo
  - City of Manhattan Beach
  - County of Los Angeles
  - California Coastal Commission
  - State Lands Commission
  - South Coast Air Qualify Management District (SCAQMD)
  - Local Native American Tribes
Committee conducts hearings to create evidentiary record

Issues Presiding Member’s Proposed Decision (PMPD). The PMPD contains findings relating to:

- Environmental impacts, public health, engineering
- Project’s compliance with LORS
- Recommends conditions of certification
- Recommends whether or not to approve the amendment

Full Commission issues a Final Decision

Appeals: Reconsideration by Commission; California Supreme Court

Energy Commission monitors compliance with all conditions of certification, for the life of the project and closure
Staff’s Issues Identification Report

Purpose

- Inform participants of potential issues
- Early focus on important topics
Staff’s Potential Issue Areas

- Environmental Justice Population
- Coordination with SCAQMD / Project Schedule
Based upon the 2010 Census data, 63.4 percent of the total population living within the six-mile buffer of the project site constitutes an environmental justice population.

Staff will review the impacts resulting from the construction and operation of the proposed project, to determine impacts and necessary mitigation.

Staff will work with the Hearing Officer and Public Advisor on public outreach regarding the project and its impacts.
Potential Issue
Air Quality Schedule Timing

- Preliminary Determination of Compliance (PDOC) expected in November 2013 and a Final Determination of Compliance (FDOC) expected in April 2014.

- Energy Commission staff utilizes the PDOC and FDOC in their air quality analysis, the timing of the availability of these documents will impact the proposed schedule for producing an Energy Commission final decision.
# Staff’s Proposed Schedule

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>DAY</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant files ESEC Petition to Amend</td>
<td>--</td>
<td>4/23/13</td>
</tr>
<tr>
<td>Staff files Notice of Receipt</td>
<td>--</td>
<td>5/14/13</td>
</tr>
<tr>
<td>Committee assigned</td>
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<td>6/12/13</td>
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<tr>
<td>Staff files Issues Identification Report</td>
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<td>8/5/13</td>
</tr>
<tr>
<td>Staff files data requests</td>
<td>--</td>
<td>8/9-12/13</td>
</tr>
<tr>
<td>Data Request Workshop (if needed)</td>
<td>--</td>
<td>8/13</td>
</tr>
<tr>
<td>Informational Hearing / Status Conference</td>
<td>--</td>
<td>8/13/13</td>
</tr>
<tr>
<td>Applicant provides data responses (last response)</td>
<td></td>
<td>9/13</td>
</tr>
<tr>
<td>Data Response and Issue Resolution Workshop</td>
<td></td>
<td>9/13</td>
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<tr>
<td>California Coastal Commission expected to file comments</td>
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<td>11/13</td>
</tr>
<tr>
<td>SCAQMD files PDOC</td>
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### Staff’s Proposed Schedule

<table>
<thead>
<tr>
<th>ACTIVITY</th>
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<tbody>
<tr>
<td>Preliminary Staff Assessment published</td>
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<tr>
<td>Preliminary Staff Assessment Workshop</td>
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<tr>
<td>Preliminary Staff Assessment – 30 day comment period ends</td>
<td>75</td>
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<tr>
<td>SCAQMD files FDOC</td>
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<td>4/14</td>
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<tr>
<td>Final Staff Assessment published</td>
<td>30</td>
<td>5/14</td>
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<tr>
<td>Prehearing Conference*</td>
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<tr>
<td>Evidentiary hearings*</td>
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<tr>
<td>Presiding Members Proposed Decision (PMPD)*</td>
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<tr>
<td>Committee Hearing on PMPD*</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Addendum/Revised PMPD</td>
<td>TBD</td>
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<tr>
<td>Energy Commission Decision*</td>
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</tr>
</tbody>
</table>
El Segundo Energy Center Amendment
Docket No. 00-AFC-14C

Informational Hearing and Site Visit

Alana Mathews
Public Adviser

August 13, 2013
The Public Adviser is a Governor appointed attorney who independently:

- Helps the public understand the process
- Recommends the best way to be involved
- Assists in successful participation in proceedings
Notice of Informational Hearing and Site Visit:

- City and County officials from the area
- Native American officials and members
- Broad categories:
  - Public members who have contacted our office; city and county civic leaders; local non-profit groups (community, environmental, ethnic organizations); public and private schools; hospitals, law enforcement; emergency personnel and community organizations.
- Paid local newspaper advertisement
- Local Libraries
- Local TV and radio contacted
Informal Participation

First level -- Public Comments are Easiest

- Verbal Comments at Public Meetings: via Blue Cards
- Written Comments or Statements to the Commission Dockets Unit
  dockets@energy.ca.gov

And

- Considered by the Commissioners
- Part of the record

But

- Not considered evidence and cannot be the sole basis of a decision
Two Levels of Public Participation

Formal Participation (Intervenor)

Second level -- Intervening is more involved

- Anyone may file a Petition to Intervene in a Commission proceeding
- The Petition is considered by the assigned committee
- If approved, you become a party to this proceeding
- Intervenors can present evidence at the hearings and question the staff and applicant's witnesses

and

- You do not have to be or have an attorney to intervene

and

- The Public Adviser’s Office is here to help you file a Petition to Intervene and navigate the entire process.

NOTE: It is important to intervene early in a case to be most effective.
How to Participate

Things to Do

- **Sign-Up on the List Server** to receive notice of upcoming events: [www.energy.ca.gov/listservers](http://www.energy.ca.gov/listservers)
- **Submit written comments**
- **Provide oral comments**
- **Attend public project events**
  
  *In person or by WebEx or conference call*

  **Non-English Speaking Welcome**

  **Special Accommodations for Persons With Disabilities**

  Lourdes Quiroz (916) 654-5146, lquiroz@energy.state.ca.us
How to Participate

www.energy.ca.gov
How to Participate

Power Plant Licensing Cases Under Review

Directory and Status of Projects

» ALPHABETICAL LISTING OF ALL PROJECTS
» STATUS OF ALL PROJECTS

Projects

» Abenigo-Mojave Solar Project
» Almond 2 Power Project
» Averial Energy Project
» Beacon Solar Energy Project
» Black Rock Geothermal Major Amendment
» Blythe Solar Power Project
» Calico Solar Project
» Canyon Power Plant
» Carlsbad Energy Center
» El Centro - Unit 3 Repower
» El Segundo Dry Cooling Amendment
» Genesis Solar Energy Project
» Hanford Combined-Cycle Power Plant Amendment
» Hanfette Combined-Cycle Power Plant Amendment
» Hidden Hills Solar Electric Generating System
» Huntington Beach Energy Project
» Hydrogen Energy California
» Mannan Solar
» Loczi Energy Center
» Mariposa Power Project
» Marsh Landing Generating Station
» Oakley Generating Station (Formerly Contra Costa)
» Palen Solar Power Project
» Palmdale Solar-Gas Hybrid
» Pro Pico Energy Center
» Quail Brush Generating Project
» Ribe Solar Energy Project
» Ridgecrest Solar Power Project
» Rio Mesa
» Russell City Amendment #2
» San Gabriel Generating Station
» Santa Clara SC-1 Data Center, Phase 2
» Sentinel Energy Project
» Sun Valley Energy Project
» Tracy Combined Cycle Power Plant
» Vaca Station - CPV Vaca-Station
» Victorville 2 Hybrid
» Walnut Creek Energy Park
» Watson Cogeneration Project
» Willow Pass Generating Station
Contact

Alana Mathews, Public Adviser

(916) 654-4489
(800) 822-6228 Toll Free
(916) 654-4493 FAX

1516 Ninth St, MS-12
Sacramento CA 95814-2950

publicadviser@energy.ca.gov
www.energy.ca.gov/public_adviser
Sources of Information

The Amendment is available for public review at the following libraries:

El Segundo Public Library; Manhattan Beach Library; Redondo Beach Public Library; Lawndale Public Library; Wiseburn Library; Masao W. Satow Library; View Park Library; Culver City Julian Dixon Library; Hawthorne Library; Lloyd Taber-Marina del Rey Library; Lennox Library; Inglewood Public Library, Main and Crenshaw-Imperial Branches

Copies are also available at the Energy Commission’s Library in Sacramento, the California State Library in Sacramento, and at public libraries in Eureka, San Francisco, Fresno, Los Angeles, and San Diego.
Sources of Information

- All project documents are available for public review at:


  - Dockets Unit at the Energy Commission
    1516 9th Street, MS - 4
    Sacramento, CA 95814-5512
Energy Commission Contacts

- **Committee**
  - Commissioner, Karen Douglas, *Presiding Member*
  - Commissioner, Janea Scott, *Associate Member*

- **Hearing Officer**
  - Paul Kramer, Commission’s Hearing Officer
    (916) 654-5103, e-mail: Paul.Kramer@energy.ca.gov

- **Commission Staff**
  - Craig Hoffman, Compliance Project Manager
    (916) 654-4781, e-mail: Craig.Hoffman@energy.ca.gov

- **Public Adviser’s Office**
  - Alana Mathews
    (916) 654-4489 or (800) 822-6228
    e-mail: PublicAdviser@energy.ca.gov