

California Energy Commission

BEACON SOLAR ENERGY PROJECT

Application for Certification
08-AFC-2

DOCKET
08-AFC-2

DATE JUNE 11 2008

RECD. JUNE 12 2008

Informational Hearing and Site Visit
Bill Pfanner – Project Manager

June 11, 2008



Purpose of Siting Process

“ ...to ensure that a reliable supply of electrical energy is maintained at a level consistent with the need for such energy, for protection of public health and safety, for promotion of the general welfare, and for environmental quality protection.”

Public Resources Code 25001



Energy Commission's Role

- **California Energy Commission (CEC) permitting authority**
 - **Thermal power plants \geq 50 megawatts**
 - **Related facilities**
 - **electric transmission lines**
 - **water supply pipelines**
 - **natural gas pipelines**
 - **waste disposal facilities**
 - **access roads**

- **Lead state agency for California Environmental Quality Act (CEQA)**



Overview of Three-Step Licensing Process

1. Data Adequacy

- Minimum requirements to accept application

2. Staff Discovery and Analysis

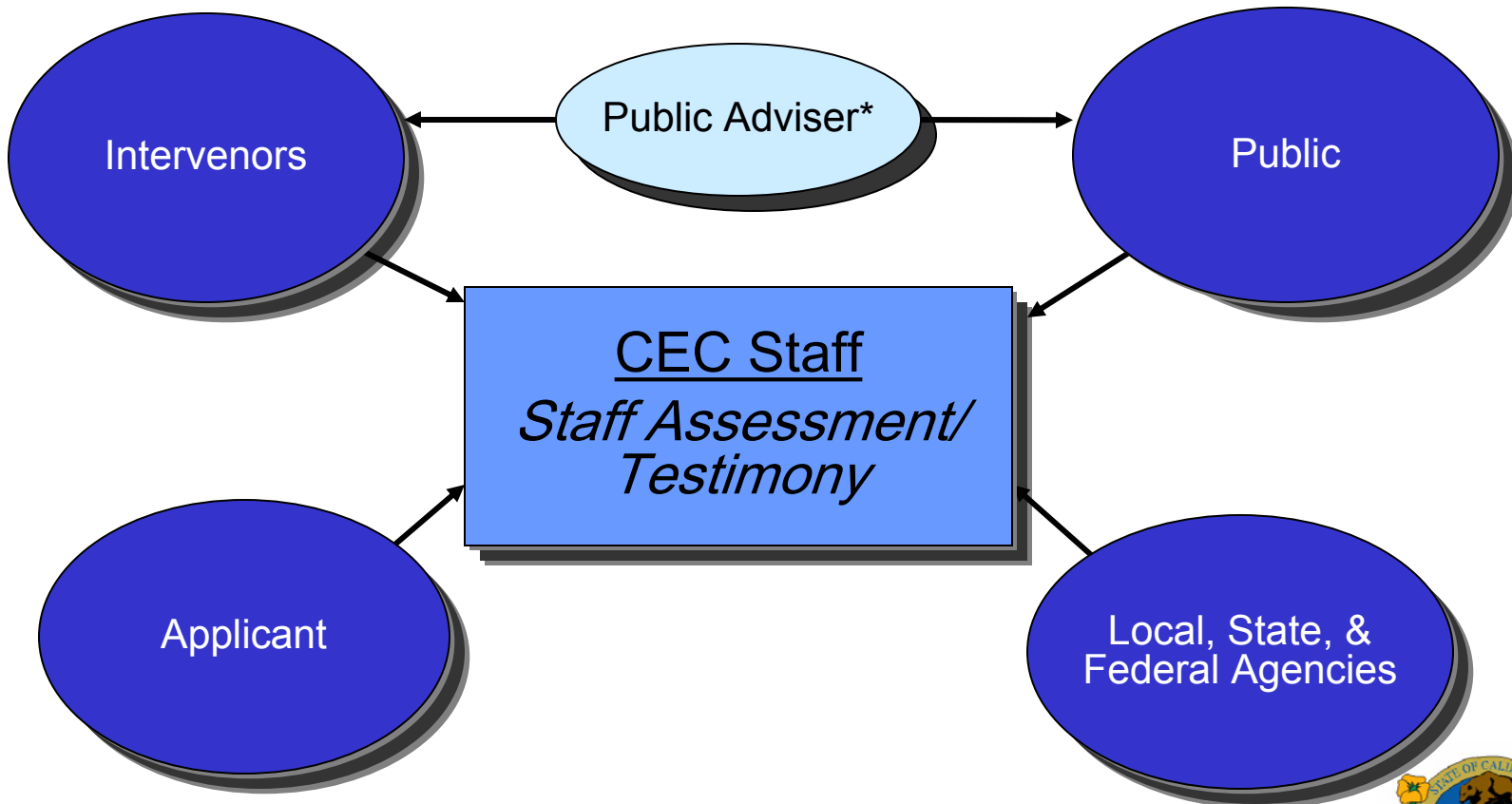
- Data Requests
- Issues Identification
- Public Workshops
- Preliminary and Final Staff Assessments (PSA and FSA)

3. Committee Evidentiary Hearing and Decision

- Evidentiary hearings based on FSA and other information
- Committee produces Presiding Member's Proposed Decision (PMPD)
- PMPD goes before full Commission for decision



Staff Discovery and Analysis Process



* The Public Adviser provides assistance on how to participate in the CEC's public process.

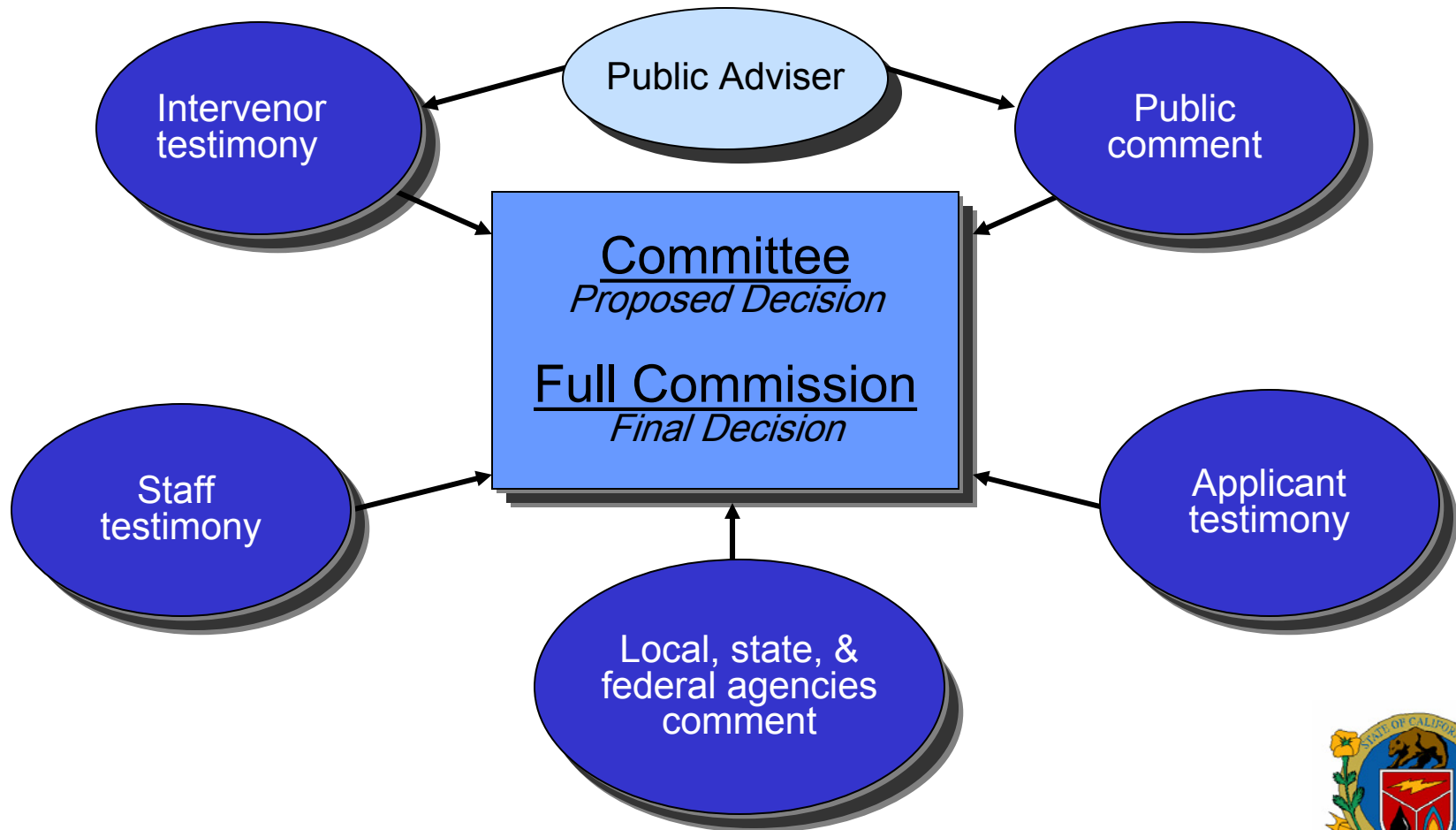


Staff Discovery and Analysis Process

- Determine if proposal complies with Laws, Ordinances, Regulations, Standards (LORS)
- Conduct engineering and environmental analysis
 - identify issues
 - evaluate alternatives
 - identify 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



Evidentiary Hearing & Decision Process



Evidentiary Hearing & Decision Process

- **Committee conducts hearings on all information**
 - Issues Presiding Member's Proposed Decision (PMPD)
 - 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 project
- **Full Commission makes decision**
- **Energy Commission monitors compliance with all conditions of certification, for the life of the project**
 - includes facility closure



Local, State and Federal Coordination

- Staff works closely with local, state and federal agencies, for example:
 - **Local/Regional**
 - Kern County – Public Health Department, Waste Management, Public Works, Planning, Building, Health, Fire, Sanitation.
 - Cities of California City, Ridgecrest, and Tehachapi
 - Kern County Air Pollution Control District (KCAPCD)
 - Regional Water Quality Control Board
 - Kern County Water Agency
 - **State**
 - Air Resources Board
 - State Office of Historic Preservation
 - Department of Fish & Game
 - State Water Resources Control Board
 - Caltrans – District 9
 - **Federal**
 - US Environmental Protection Agency
 - US Fish & Wildlife Service
 - US Army Corps of Engineers



A Bit About the Public Process

- **Open Public Process**
 - Workshops and Hearings noticed at least 10 days in advance
 - Mailing lists
 - List Server: www.energy.ca.gov/listservers
- **Documents are available for public review at:**
 - Kern County Public Libraries (California City, Ridgecrest, Mojave, Rosamond, Tehachapi Branches) and public libraries in Eureka, Sacramento, San Francisco, Fresno, Los Angeles and San Diego
 - Energy Commission Library in Sacramento
 - Energy Commission Web site:
www.energy.ca.gov/sitingcases/beacon
 - Dockets Unit at the Energy Commission
1516 9th Street, MS - 4
Sacramento, CA 95814-5512



Ways You May Participate

- **Submit written comments or statements to the Commission**
- **Provide oral comments at public meetings**
- **Become a formal Intervenor (Contact Public Adviser's Office – Nick Bartsch)**
- **Provide written comments on the PSA, FSA, and PMPD**



List Server

5 Easy Steps to Subscribe:

Go to Web Address:
www.energy.ca.gov/listservers

Enter Email Address

✓ - Subscribe

✓ - Beacon

Send Subscription

Energy Commission's Mailing Lists / List Servers

Welcome to the *California Energy Commission*

WWW.ENERGY.CA.GOV / LISTSERVERS /

List Servers (Automated E-mail Groups)
Hosted by the California Energy Commission

In general, list servers are automated e-mail systems where a single e-mail sent to a list's main address can be automatically distributed to an entire group of subscribers. The Commission hosts a number of list servers that are used to distribute information on various topics about Commission programs, workshops, etc. The Commission's lists are not used for general discussion of these topic areas. Most items below are linked to their respective sections for more information about those program areas.

You can subscribe below by entering your e-mail address then click on subscribe and click the box for the list(s) you wish to subscribe to. Click the unsubscribe button and the list name(s) to delete your name from any list. Please make sure you type your e-mail address correctly.

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Check the lists you are interested in:

POWER PLANT LICENSING	Siting Division General List General licensing info, for projects before they are data adequate, and for compliance proceedings on Commission-approved projects that are on-line and producing power. (List of Current Licensing Cases) PLEASE DO NOT subscribe to these lists unless you are interested in information about these specific power plant licensing cases.	COMMISSION GENERAL LISTS	agendas (Commission Business Meeting Agendas) bioenergy (Bioenergy Action Plan) climatechange (Climate Change Program) contingency (Energy Emergency Contingency Planning) education (Energy Education / Energy Quest Website) energypolicy (Integrated Energy Policy Report) export (Energy Export Program) newsreleases (Commission News Releases) opportunity (RFPs, contracts, funding announcements)
PROJECTS UNDER REVIEW	List Server is created when a project is "data adequate." avenal (Avenal Power Project) bullard (EIF Fresno/Bullard Project) colusa (CVP Colusa Project) eastshore (Eastshore Project)		

<http://www.energy.ca.gov/listservers/> (1 of 3) 12/12/2006 10:19:22 AM



Energy Commission's Website for Beacon

Project Proceeding: Notices & Announcements

Documents & Reports

- Figures & Maps
- Commission's Documents
- Applicant's Documents
- Other Interested Government Agencies' Documents
- Intervenor's & Others' Documents

Participation:

Public Adviser's Office

Guide to Public Participation in Siting Cases

Overview of Siting Process

Title 20 CA Code of Regs

Acronyms Used in Siting Cases

Beacon Solar Energy Project Power Plant Licensing Case - Docket # 08-AFC-02

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WWW.ENERGY.CA.GOV / SITINGCASES / BEACON

Beacon Solar Energy Project

Commission Home page
Siting Cases Main Page

Project Proceeding
Project Fact Sheet (PDF File)
Notices & Announcements (Updated: 5/22/08)
Documents and Reports (Updated: 6/03/08)
Docket Log 08-AFC-2
Proof of Service List (PDF file)

Participation
Public Adviser's Office
Guide to Public Participation In Siting Cases
Commission Siting Division
Overview of Siting Process
Title 20 Calif. Code of Regulations
Acronyms Used in Siting Cases

List Server
To subscribe to the "Beacon" e-mail ListServer, enter your e-mail address completely:

Note: Your e-mail address must be exact and complete. Incorrect or incomplete addresses will not work. You will receive a welcoming e-mail to confirm your subscription.

Docket Number: 08-AFC-2 (Application For Certification)

ANNOUNCEMENTS
June 11, 2008
Site Visit And Informational Hearing

Committee Overseeing This Case:
Karen Douglas, Commissioner
Presiding Member
Jeffrey Byron, Commissioner
Associate Member
Hearing Officer: Ken Celli

Key Dates
• May 5, 2008 - Commission accepts Application for Certification (AFC) as complete.
• March 14, 2008 - Application for Certification (AFC) filed with California Energy Commission

General Description of Project
Beacon Solar, LLC, a Delaware limited liability company is proposing to construct, own and operate the Beacon Solar Energy Project. The project is a concentrated solar electric generating facility proposed on an approximately 2,012-acre site in Kern County, California. The project will use well-established parabolic trough solar thermal technology to produce electrical power using a steam turbine generator (STG) fed from a solar steam generator (SSG). The SSG receives heated heat transfer fluid (HTF) from solar thermal equipment comprised of arrays of parabolic mirrors that collect energy from the sun.

The project will have a nominal electrical output of 250 megawatts (MW) and commercial operation is planned to commence by the third quarter of 2011, subject to timing of regulatory approvals and applicant achievement of project equipment procurement and construction milestones. The solar thermal technology will provide 100 percent of the power generated by the plant; no supplementary energy source (e.g., natural gas to generate electricity at night) is proposed to be used for electric energy production. The project will utilize two auxiliary boilers fueled by natural gas to reduce startup time and for HTF freeze protection. The auxiliary boilers will supply steam to the HTF freeze protection heat exchangers during nighttime hours to keep the HTF in a liquid state when ambient temperatures are not sufficient to keep the temperature of the HTF above its relatively high freezing point (54 degrees Fahrenheit [1F]). In order to fuel the boilers, a new 17.6-mile, eight-inch gas pipeline will be constructed to connect the project to an existing Southern California Gas Company (SCG) pipeline in the California City area. The project will also have a diesel-fueled firewater pump for fire protection.

Energy Commission Facility Certification Process
The Energy Commission's facility certification process carefully examines public health and safety, environmental impacts and engineering aspects of proposed power plants and all related facilities such as electric transmission lines, natural gas pipelines, etc. The Energy Commission is the lead agency under the California Environmental Quality Act (CEQA) and has a certified regulatory program under CEQA. Under its certified program, the Energy

<http://www.energy.ca.gov/sitingcases/beacon/index.html> (1 of 2) [6/4/2008 1:27:18 PM]



Issues Identification Report

Potential Issues

- **Project Description**
- **Air Quality**
- **Biological Resources**
- **Soil and Water Resources**



Purpose and Criteria

■ Purpose

- Inform participants of potential issues
- Early focus on important topics

■ Criteria

- Significant impacts that may be difficult to mitigate
- Non-compliance with LORS
- Conflicts between parties about appropriate findings or conditions of certification for Commission decision that could delay schedule



Potential Issue – Project Description

■ Project Description

- AFC identifies moving 5.16 million cubic yards (7.7 million tons) of soil on project site (2,012 acres).
- Without a more thorough and comprehensive discussion, staff cannot properly analyze the project's construction related impacts to their respective disciplines.
- Staff is providing numerous data requests in an effort to more fully understand construction phase of project.



POTENTIAL ISSUE – AIR QUALITY

- **Air Quality**
 - **Staff needs to understand how the particulate matter (PM10) generated by construction activities will be managed and controlled on an ongoing basis during each phase of construction.**



Potential Issue – Biological Resources

■ Biological Resources

- Pine Tree Creek will be re-routed, resulting in impacts to 8,150 linear feet of the western channel of this dry wash, and 6,200 feet of the eastern channel.
- Eliminating the current drainage features will result in impacts to 13.7 acres of State jurisdictional waters.
- Concerns about how the artificial channel could replace the biological and hydrological functions of the natural drainage.



Potential Issue – Soil & Water Resources

■ Soil & Water Resources

- Project proposes using approximately 1,600 acre-feet per year of high quality groundwater from onsite wells for site construction and power plant cooling.
- Concern that use of fresh water for cooling could impact groundwater supply, and adversely affect the subbasin's recovery from overdraft.
- Alternative water sources (e.g. brackish water) and cooling technologies (e.g. air-cooling) will be evaluated.
- Diversion of Pine Tree Creek may cause severe erosion and flooding due to unnaturally configured segments of the realigned drainage.



Staff's Proposed Schedule

7-May-08	Decision on data adequacy at Commission business meeting
2-Jun-08	Staff files Issue Identification Report
9-Jun-08	Staff files data requests (round 1)
11-Jun-08	Information hearing, site visit
7-Jul-08	Applicant provides data request responses (round 1)
21-Jul-08	Data response and issue resolution workshop
1-Aug-08	Staff files data requests, (round 2, if necessary)
29-Aug-08	Applicant provides data responses (round 2, if necessary)
3-Sep-08	KCAPCD's Preliminary Determination of Compliance
18-Sep-08	Data response and issue resolution workshop (round 2, if necessary)
17-Oct-08	Preliminary Staff Assessment filed
3-Nov-08	Local, state, and federal agency final determinations (e.g., FDOC from KCAPCD)
7-Nov-08	Preliminary Staff Assessment Workshop
2-Dec-08	Final Staff Assessment filed
12/12/08*	Prehearing Conference
EarlyJan. 2009*	Evidentiary hearings
7-Mar-09*	Presiding Member's Proposed Decision (PMPD)
24-Mar-09*	Committee Conference on PMPD
9-May-09*	Energy Commission Hearing--Final Decision

***Schedule set by Hearing Office**



Staff's Proposed Schedule

- **Meeting this schedule will depend on:**
 - Applicant's timely response to staff's data requests.
 - Timing of the KCAPCD filing of the Determination of Compliance
 - Determinations of other local, state, and federal agencies
 - Other factors not yet known



Project Contacts

- **California Energy Commission Committee**
 - Commissioner Karen Douglas – Presiding Member
 - Commissioner Jeffery Byron – Associate Member
 - Ken Celli, Commission’s Hearing Officer
 - (916) 651-8893, email: kcelli@energy.state.ca.us
- **California Energy Commission (CEC)**
 - Bill Pfanner - Project Manager
 - (916) 654-4206, email: bpfanner@energy.state.ca.us
 - Web page: www.energy.ca.gov/sitingcases/beacon
 - Nick Bartsch, Public Adviser
 - (916) 654-4701 or (800) 822-6228
 - email: pao@energy.state.ca.us
- **FPL Energy, LLC – Beacon Solar Energy Project**
 - Gary L. Palo – Director Business Development
 - (949) 721-1554, email: Gary_L_Palo@fpl.com



California Energy Commission

Questions?

