



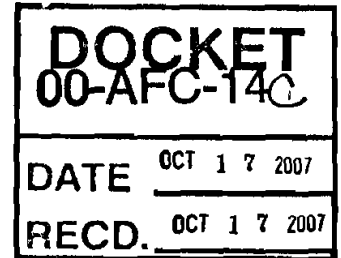
770 L Street, Suite 800  
Sacramento, California 95814  
main 916.447.0700  
fax 916.447.4781  
www.stoel.com

October 17, 2007

KIMBERLY HELLWIG  
Direct (916) 319-4742  
kjhellwig@stoel.com

**BY HAND DELIVERY**

Mr. Steve Munro, Compliance Project Manager  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814



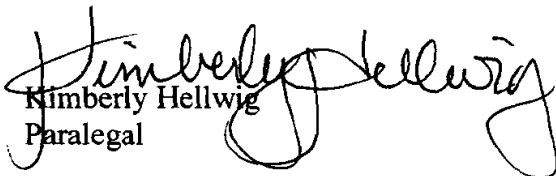
**Re: El Segundo Power Redevelopment Project (00-AFC-14C)  
Rule 1309.1 Priority Reserve - Supplemental Renewable Evaluation**

Dear Mr. Munro:

Please find enclosed herewith El Segundo Power II's supplemental information regarding the evaluation of substantial renewable power generation at the El Segundo Generating Station. This information was presented to the South Coast Air Quality Management District after its request for additional information.

Should you have any questions or concerns regarding this submittal, please contact Seth D. Hilton or me at (916) 447-0700.

Respectfully submitted,

  
Kimberly Hellwig  
Paralegal

/kjh

Enclosure

cc: Mr. Tim Hemig, El Segundo Power II LLC  
Mr. George Piantka, El Segundo Power II LLC  
Mr. Seth D. Hilton, Stoel Rives LLP



**El Segundo Power II LLC**  
1817 Aston Avenue, Suite 104  
Carlsbad, CA 92008

Direct Phone: 760.710.2144

**VIA EMAIL AND FIRST CLASS MAIL**

October 17, 2007

Mr. Ken Coats  
South Coast Air Quality Management District  
21865 E. Copley Drive  
Diamond Bar, CA 91765

**Re: El Segundo Power Redevelopment Project (Facility ID No. 115663)-  
Rule 1309.1 Priority Reserve – Supplemental Renewable Evaluation**

Dear Mr. Coats:

Via an email dated October 12, 2007, you asked for further information about the viability of generating power at the El Segundo Generating Station ("ESGS") to attain a capacity level of approximately 50 megawatts ("MWs") from wind, solar, or fuel cell technology. El Segundo Power II LLC believes the information presented in our September 25, 2007 letter demonstrated that no substantial power generation on ESGS was viable from these or other renewable or alternative energy sources, including anywhere near the 50 MWs threshold asked for by the District. Regardless, please find below additional information related to that demonstration.

- 1) **Wind Power** – Pursuant to information from the California Energy Commission's ("CEC") California Wind Resources Report (April 2005), approximately 40 acres are needed for each 1 MW of wind capacity. The basis for the acreage per MW is numerous, including the type of terrain at a potential site and the size and type of proposed wind turbines. However, at a fundamental level there is a logistical limitation for how many wind turbines can be located at a given site due to the sheer size of the individual units and also to avoid affecting other wind turbines located nearby. According to Figure 10 of the CEC report, the largest land-based wind turbines are approximately 3.5 MWs in capacity and have blade spans of approximately 328 feet. Due to the approximate seven acres of limited space at ESGS for the proposed El Segundo Power Redevelopment Project ("ESPR"), it is likely that only one large wind turbine could be logistically sited at the ESPR Project location and therefore 3.5 MWs would be the maximum viable wind capacity. Even if the entire approximate 4200 linear feet of coastline where the ESGS is located were devoted to wind turbines, it is likely that the above described constraints would logistically limit the number of wind turbines to one or two units for a maximum of 3.5 to 7 MWs of capacity. Even then, the wind resource maps in the CEC report show that the ESGS is not a location where you would locate any wind turbines due to the insufficient wind speeds in the area. Therefore for the reasons described above, wind generation potential at ESGS is well

below the District's stated 50 MW threshold and should not be considered a viable alternative to the ESPR project at the ESGS location.

- 2) **Solar Power** – The CEC California Solar Resources Report (April 2005) clearly shows that the various available solar generation technologies would not be viable at ESGS for multiple reasons. First, the most solar capacity that could be located on the seven acres of space for the proposed ESPR Project is approximately 2 MWs, assuming that a type of Concentrating Solar Power technology (“CSP”) was constructed. Photovoltaic technology was not considered because this type of technology is typically a residential or business roof top application and would be less MW density as compared with CSP technology. Table 4 of the CEC report shows what is thought to be the technical potential for CSP in California, limited to areas of sufficient solar resources. On average, the physical space needed for each MW of CSP capacity is 3.3 acres. The ESPR Project would use approximately seven acres of ESGS property for direct power generation, which logistically translates into approximately 2 MW of solar generation potential at ESGS. Secondly, the CEC report shows that the ESGS location is not in a solar resource area that is recommended for CSP technology. The solar resource maps in Figures 13 and 14 clearly show CSP technology to be best applied in the inland southwest region where significant solar radiation occurs throughout the year. Third, the CEC report also states that solar generation is not thought to be technically viable in the coastal zone (see Page 7). For all of these reasons, solar generation is not a viable alternative to the ESPR Project at the ESGS location and certainly could not meet the District threshold of 50 MWs of capacity.
  
- 3) **Fuel Cells** – Fuel cell power is typically a distributed generation technology with the largest individual units on the order of 100 to 500 kilowatts (kW) of capacity. According to the CEC's Distributed Energy Resource Guide (located at: [http://www.energy.ca.gov/distgen/equipment/fuel\\_cells/fuel\\_cells.html](http://www.energy.ca.gov/distgen/equipment/fuel_cells/fuel_cells.html)), most fuel cell technology is in the research and development stage and only one model is commercially available, which is the UTC Power PureCell 200. This unit is rated at 200 kW and requires an approximate footprint of 220 ft<sup>2</sup> according to the UTC Power literature (both power and cooling models). This space requirement does not consider the other equipment and infrastructure needed to construct such a plant, including hydrogen or natural gas processing and piping infrastructure. While it is technically possible that a chain of 250 of these fuel cells could be linked to generate the District's 50 MWs of threshold capacity, such a fuel cell plant has never been constructed and the CEC information states that the largest commercially available fuel cell installation is approximately 10 MWs (see Fuel Cell Overview Table at the CEC website). Further, fuel cell technology currently costs approximately \$5500/kW to purchase and install. This is approximately 5-6 times greater installed cost relative to average central station combined cycle installations. For the reasons described above, fuel cell technology is not a viable alternative to the ESPR Project.

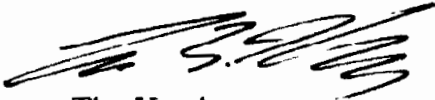
Wind, solar, and fuel cell technologies are excellent sources of electrical generation when sited in the correct locations and for the correct applications. However, El Segundo Power II LLC believes the above information demonstrates that these options are simply not viable alternatives

Mr. Ken Coats  
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to the ESPR Project, which proposes to install 540 MWs of very efficient and fast starting combined cycle power generation on seven acres of available space at the ESGS facility.

If you have any questions or need any additional information, please do not hesitate to contact me at (760) 710-2144.

Sincerely,  
El Segundo Power II LLC

A handwritten signature in black ink, appearing to read 'Tim Hemig', with a stylized flourish at the end.

Tim Hemig  
Director, Environmental & New Business

cc: CEC Docket (00-AFC-14C)  
Steve Munro, California Energy Commission