

DOCKETED

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Project Title:	Ivanpah Solar Electric Generating System (Compliance)
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CALIFORNIA ENERGY COMMISSION

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**STATE OF CALIFORNIA
 ENERGY RESOURCES CONSERVATION
 AND DEVELOPMENT COMMISSION**

In the Matter of:

**IVANPAH SOLAR ELECTRIC
 GENERATING SYSTEM**

**SOLAR PARTNERS I, L.L.C.,
 SOLAR PARTNERS II, L.L.C., AND
 SOLAR PARTNERS VIII, L.L.C.**

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Docket No. 07-AFC-5C

Order No. 14-0821-10

ORDER APPROVING

a Petition to Amend

On March 26, 2014, Solar Partners I, L.L.C., Solar Partners II, L.L.C., and Solar Partners VIII, L.L.C (Solar Partners), the owners of the Ivanpah Solar Electric Generating System project (ISEGS), submitted a Petition to Amend the Commission Decision, requesting to increase the maximum allowable annual fuel usage limit for boilers from 328 to 525 million standard cubic feet of natural gas. The modifications will allow for additional fuel use during some days to compensate for intermittent cloud cover in order to maintain peak power production and to operate the system efficiently and in a manner that protects plant equipment and maximizes solar electricity generation.

STAFF RECOMMENDATION

Energy Commission staff reviewed the petition, finds that it complies with the requirements of Title 20, section 1769 (a) of the California Code of Regulations, and recommends approval of Solar Partner's petition to modify the ISEGS project and amend related Conditions of Certification **AQ-12** and **AQ-34**, and delete Condition of Certification **AQ-10**.

ENERGY COMMISSION FINDINGS

Based on staff's analysis, the Energy Commission concludes that the proposed modification(s) will not result in any significant impacts to public health and safety, or to the environment. The Energy Commission finds that:

- The petition meets all the filing criteria of Title 20, section 1769 (a), of the California Code of Regulations, concerning post-certification project modifications;
- The modification will not change the findings in the Energy Commission's Decision, pursuant to Title 20, section 1755, of the California Code of Regulations;
- The project will remain in compliance with all applicable laws, ordinances, regulations, and standards, subject to the provisions of Public Resources Code, section 25525;
- The modifications will be beneficial because they will enable the project owner to optimize operations and maximize solar power production; and
- There has been a substantial change in circumstances since the Energy Commission certification justifying the modifications based on information that was not available to the parties prior to Energy Commission certification in that the experience of actual operation has demonstrated how to make the best use of the equipment.

CONCLUSION AND ORDER

The California Energy Commission hereby adopts staff's recommendations and approves the following changes to the Commission Decision for the Ivanpah Solar Electric Generating System project.

CONDITIONS OF CERTIFICATION

The following is a list of all conditions of certification, including conditions that are currently being proposed for modification. ~~Strikethrough~~ is used to indicate proposed deleted language and underline is used for proposed new language.

~~AQ-SC10~~ The ISEGS 1, ISEGS 2, and ISEGS 3 boilers shall not exceed a total annual natural gas fuel heat input that is more than 5 percent of the total annual heat input from the sun for ISEGS1, ISEGS2, and ISEGS 3, respectively.

~~Verification:~~ Annual natural gas fuel heat input data and annual solar heat input data for the ISEGS 1, ISEGS 2, and ISEGS 3 units showing compliance with this condition shall be provided in the Annual Compliance Report (COMPLIANCE 7). The Annual Compliance Report shall include this data separately for ISEGS 1, ISEGS 2, and ISEGS 3. The initial Annual Compliance Report shall include documentation of the methodology used to verify compliance with the Condition. The documentation shall include a heat balance diagram, engineering analysis, assumptions and supporting data.

Mojave Desert Air Quality Management District (MDAQMD)

CONDITIONS APPLICABLE TO IVANPAH 1, 2 & 3 (THREE - 3) AUXILIARY BOILERS,
MDAQMD APPLICATION NUMBERS/PERMIT NUMBERS; 00009311 (B010375)
00009314 (B010376) & 00009320 (B010377), each consisting of:

Rentech D-type water tube boilers, each equipped with Todd-Coen Ultra Low-NOx Burners rated at a maximum heat input of 249 MMBTU/hr, and flue gas recirculation (FGR or EGR), fueled exclusively on utility grade natural gas. Equipment shall use 242,500 cu-ft/hr of fuel and provide 75,000 lb/hr of steam. Each boiler is equipped with a stack that is 130 feet high and 60 inches in diameter.

AQ-12 The combined fuel use from the auxiliary boiler and nighttime preservation boiler shall not exceed **525 328** MMSCF of natural gas in any calendar year; combined fuel use is the sum total of natural gas combusted from Boilers with MDAQMD permit numbers B010375 and B011544 (Ivanpah 1) **and shall not exceed a total of 525 mmscf in any calendar year in that boiler pair,** B010376 and B011572 (Ivanpah 2) **and shall not exceed a total of 525 mmscf in any calendar year in that boiler pair,** B010377 and B011573 (Ivanpah 3) **and shall not exceed a total of 525 mmscf in any calendar year in that boiler pair.**

Verification: During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S. EPA or Energy Commission staff.

CONDITIONS APPLICABLE TO IVANPAH 1, 2, & 3 (Three - 3) NIGHTTIME PRESERVATION BOILERS, MDAQMD APPLICATION NUMBERS/PERMIT NUMBERS; MD100000063 (B011544), MD100000064 (B011572) & MD100000065 (B011573), each consisting of:

Equipped with Low-NOx Burners rated at a maximum heat input of less than 10.0 MMBTU/hr, fueled exclusively on utility grade natural gas. Equipment shall use 9,730 cu-ft/hr of fuel and provide 5,000 lb/hr of steam.

AQ-34 The combined fuel use from the auxiliary boiler and the nighttime preservation boiler shall not exceed **525 328** MMSCF of natural gas in any calendar year; combined fuel use is the sum total of natural gas combusted from Boilers with MDAQMD permit numbers B010375 and B011544 (Ivanpah 1) **and shall not exceed a total of 525 mmscf in any calendar year in that boiler pair,** B010376 and B011572 (Ivanpah 2) **and shall not exceed a total of 525 mmscf in any calendar year in that boiler pair,** B010377 and B011573 (Ivanpah 3) **and shall not exceed a total of 525 mmscf in any calendar year in that boiler pair.**

Verification: During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S. EPA or Energy Commission staff.

IT IS SO ORDERED.

CERTIFICATION

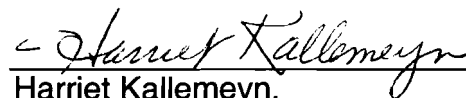
The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of an Order duly and regularly adopted at a meeting of the California Energy Commission held on August 27, 2014.

AYE: Weisenmiller, Douglas, McAllister, Hochschild, Scott

NAY: None

ABSENT: None

ABSTAIN: None



Harriet Kallemeyn,
Secretariat