

BLACK ROCK 1, 2, & 3 GEOTHERMAL **(02-AFC-2C)**

CPM: Dale Rundquist
January 26, 2011 SITING COMMITTEE MEETING

On March 13, 2009, the California Energy Commission (Energy Commission) received a petition from CE Obsidian, LLC (CE Obsidian) to build the Black Rock 1, 2, and 3 Geothermal Power Plant (BR123) (02-AFC-2C). The Salton Sea Unit 6 (SSU6) (now called BR123) project was certified by the Energy Commission on December 17, 2003, as a 185 MW multiple-flash (also called “multi-flash”) geothermal power plant. In May 2005, the Energy Commission approved a petition to amend to increase generating capacity to 215 MW as a multi-flash, single-generator facility through the use of an Organic Rankine Cycle, which would utilize energy dissipated from the dilution water heater. CE Obsidian is now seeking to modify the project to construct the BR123 project, consisting of three individual 53 MW single-flash units, for a total of 159 MW generating capacity. The facility is located near the southern end of the Salton Sea, near the town of Calipatria in Imperial County. If approved by the Energy Commission, construction of the modified facility is expected to commence in 2011 and last for 46 months, with each unit constructed sequentially.

The table below shows all the technical areas contained in the Staff Assessment and also indicates recommended Staff changes to the existing SSU6 license and conditions of certification

Summary of Technical Sections Conditions of Certification

Technical Area	Changes to Conditions of Certification	Technical Area	Changes to Conditions of Certification
Biological Resources	Yes	Air Quality/Greenhouse Gas	Yes
Cultural Resources	Yes	Facility Design	Yes
Noise and Vibration	No	Geology and Paleontology	No
Socioeconomic Resources	No	Power Plant Efficiency	No
Soil and Water Resources	Yes	Power Plant Reliability	No
Transmission Line Safety and Nuisance	No	Transmission System Engineering	No
Traffic & Transportation	No	Waste Management	No
Visual Resources	No	Public Health	No
Land Use	Yes		

Staff determined that the following technical or environmental areas would be affected by the proposed project change to combined-cycle operations and has proposed new and revised conditions of certification in order to assure compliance with LORS and/or to reduce potential environmental impacts to a less than significant level.

- **Air Quality:** Changes to air quality conditions of certification relate largely to the changes in the conditions imposed in the District Air Permit for the facility, as well as updating air quality standards and the best management practices employed to reduce project impacts.
- **Biological Resources:** Staff recommends eliminating three Conditions of Certification, modifying five other Conditions to reflect the proposed project changes and remain relevant to the proposed CE Obsidian project, and replacing one Condition with a new condition that consolidates requirements for mitigation of Burrowing Owl habitat loss.
- **Cultural Resources:** Staff recommends elimination of two Cultural Resources Conditions of Certification (**CUL-10 and 11**) because they are no longer applicable to the amended project.
- **Facility Design:** The Facility Design Conditions of Certification are modified to delete components that are not part of the new design and to add several additional components that would be installed as a result of the changed design of the project, such as single-flash tanks and the recuperative thermal oxidizers, and to note an update to the applicable Building Codes since the project was originally licensed.
- **Land Use:** Staff recommends revising Conditions of Certification **LAND-6** to update the amount of land compensation for removing important farmlands from production, and **LAND-8** to require the project owner to update its conditional use permit obtained from the county in 2003. Staff also recommends a new Condition of Certification, **LAND-9**, to ensure that the project conforms with the requirements of the Surface Mining & Reclamation Act, and the State Mining & Geology Board, concerning reclamation of the 38 acre offsite Borrow Area used for construction of project foundations and flood berms.
- **Soil & Water Resources:** The Soil & Water Resources Conditions of Certification are modified to reflect the changes in water use, and the impact mitigation for the various components of the project.

BACKGROUND

- The SSU6 project was certified by the Energy Commission on December 17, 2003, as a 185 MW multiple-flash (also called “multi-flash”) geothermal power plant.
- On May 11, 2005, Amendment 1 was approved by the Energy Commission for several identified changes in the project design that would minimize construction costs, increase operational efficiencies, and reduce the overall installed costs of the project. These changes included adding a binary-cycle turbine (Organic Rankine Cycle) to the existing steam turbine to capture dissipated energy.
- On December 19, 2007, the Energy Commission Approved a Extension of the Deadline for Commencement Construction from December 18, 2008 to December 18, 2011 (Order No. 07-1219-4).
- On March 13, 2009, the Energy Commission received a petition from CE Obsidian, LLC (CE Obsidian), a wholly owned subsidiary of California Energy Company, to amend the Energy Commission Decision for the SSU6 Geothermal Power Project to build the BR123 Geothermal Power Project (02-AFC-2C).
- On August 3, 2009, the Energy Commission approved the name change of the project from SSU6 to BR123.
- On December 3, 2010, a Staff Assessment was submitted to the public for comment.
- On January 3, 2011, the 30-day public comment period for the Staff Assessment ended. No comments were received.

ISSUE SUMMARY

On March 13, 2009, the California Energy Commission received a petition from CE Obsidian, LLC (CE Obsidian), a wholly owned subsidiary of California Energy Company, to amend the Energy Commission Decision for the SSU6 Geothermal Power Project to build the BR123 Geothermal Power Project (02-AFC-2C).

RECOMMENDATION

Staff recommends approval of the petition from CE Obsidian, LLC to amend the Energy Commission Decision for the SSU6 Geothermal Power Project to build the BR123 Geothermal Power Project (02-AFC-2C).