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# **1.0 INTRODUCTION**

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This Final Environmental Impact Report (Final EIR; FEIR) was prepared in accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (Section 15132). The County of Imperial (County) is the lead agency for the environmental review of the proposed East Brawley Geothermal Development project (proposed project; project) and has the principal responsibility for approving the project. This FEIR assesses the expected environmental impacts resulting from approval and implementation of the proposed project and responds to comments received on the Draft EIR (DEIR).

### 1.1 BACKGROUND AND PURPOSE OF THE EIR

#### OVERVIEW OF CEQA REQUIREMENTS FOR PREPARATION OF AN EIR

The County, acting as the lead agency, has prepared this EIR to provide the public and responsible/trustee agencies with information about the potential environmental effects of the proposed project. As described in State CEQA Guidelines Section 15121(a), an EIR is a public informational document that assesses potential environmental effects of the proposed project and identifies alternatives and mitigation measures to the proposed project that could reduce or avoid its adverse environmental impacts.

CEQA requires the preparation of an environmental impact report prior to approving any "project" which may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (State CEQA Guidelines Section 15378[a]). With respect to the proposed project, the County has determined that the proposed action is a project within the definition of CEQA.

#### PROJECT SUMMARY

The East Brawley Geothermal Development project includes the following project components:

- A 49.9 net megawatt (MW) geothermal power plant consisting of up to six Ormat Energy Converter (OEC) binary generating units (16 MW gross each) with vaporizers, turbines, generators, condensers, preheaters, pumps and piping, motive fluid (isopentane) storage, a motive fluid vapor recovery system, a gas scrubber, and a regenerative thermal oxidizer (RTO) and related ancillary equipment.
- Two cooling tower batteries with a total of 14–20 cell counter flow, induced draft with drift eliminators.
- A control room, office, maintenance shop, parking, and other facilities located at the power plant site.
- Approximately 36 total wells, approximately half for production and half for injection. The final number of wells will be determined by drilling results. Each well will average 4,500 feet in depth. Production wells would have a gas separator and a corrosion and scale inhibitor, as well as a geothermal fluid booster pump to pump the fluid to the power plant. The production and injection wells may also have a sand separator. Six of these wells were already approved and constructed by the County under the East Brawley Exploration permit (CUP 07-0029), while two wells are approved (not constructed) and the remaining 28 wells would be new.

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- Piping from production wells to the power plant and from the power plant to the individual injection wells. Gas pipelines would take gas contained in the brine from the gas separators to either the injection wells or to the gas scrubber at the power plant.
- Blowdown wells (2–4) at the power plant site to provide for injection of the cooling tower blowdown.
- Pumps, tank, valves, controls, flow monitoring, and other necessary equipment to the wells and pipelines.
- Maintenance of the production and injection wells cited above.
- Piping, canals or ditches, and pumps to bring water from the Imperial Irrigation District's (IID) Rockwood Canal to the power plant.
- A substation with a 2-mile-long double-circuit 13.8 and 92 kilovolt (kV) transmission line with 66-foot-high poles to interconnect to the IID at the North Brawley 1 substation at Hovley and Andre roads. The transmission line would span the New River. Two alternative transmission line routes have been identified.
- Improvements to the existing Brawley Wastewater Treatment Plant (BWWTP) to include a tertiary treatment system in order to provide reclaimed water to the proposed power plant as well as the construction of a pipeline to convey the water from the BWWTP to the power plant.

### BACKGROUND OF ENVIRONMENTAL REVIEW PROCESS FOR THE PROJECT

The following is an overview of the environmental review process for the proposed project that has led to the preparation of this FEIR.

#### **Notice of Preparation and Initial Study**

In accordance with Section 15082 of the State CEQA Guidelines, the County prepared and released a Notice of Preparation (NOP) of this EIR on June 17, 2010. The County was identified as the lead agency for the proposed project. The NOP was circulated to the public as well as to local, state, and federal agencies and to other interested parties for 30 days to solicit comments on the proposed project (SCH No. 2010061054). The NOP and full text of responses to the NOP are presented in Appendix A of the DEIR. An Initial Study (IS) for the project was prepared and released for public review along with the NOP. Its conclusions supported preparation of an EIR for the project. The IS is also included in Appendix A of the DEIR. After releasing the NOP, a public scoping session was held on June 24, 2010, to receive additional comments. Concerns raised in response to the NOP were considered during preparation of the DEIR.

#### **Draft EIR**

The Draft EIR was released for a 45-day public and agency review on March 16, 2011, with the review period set to end on April 29, 2011. The DEIR contains a description of the project and environmental setting, identification of project impacts, and mitigation measures for impacts found to be potentially significant, as well as an analysis of project alternatives. The DEIR was provided to interested public agencies and the public and was made available for review at the County offices and on the County's website.

## **Final EIR**

The County received comment letters from public agencies and an interest group regarding the DEIR. This document responds to the written comments received as required by CEQA. This document also contains minor edits to the DEIR, which are included in Section 4.0, Minor Revisions to the Draft EIR.

## **Certification of the Final EIR/Project Consideration**

The County will review and consider the Final EIR. If the County finds that the FEIR is "adequate and complete," the County may certify the FEIR. Upon review and consideration of the FEIR, the County may act upon the proposed project. A decision to approve the project would be accompanied by written findings in accordance with State CEQA Guidelines Section 15091 and, if applicable, Section 15093. The County would also adopt a Mitigation Monitoring and Reporting Program for mitigation measures that have been incorporated into or imposed upon the project to reduce or avoid significant effects on the environment. The Mitigation Monitoring and Reporting Program will be designed to ensure that these measures are carried out during project implementation.

## **1.2 INTENDED USES OF THE EIR**

The EIR is intended to evaluate the environmental impacts of the project to the greatest extent possible. This EIR, in accordance with State CEQA Guidelines Section 15126, should be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the project. Anticipated subsequent actions are listed in Section 1.0, Introduction, of the DEIR.

### **KNOWN RESPONSIBLE AND TRUSTEE AGENCIES**

In CEQA, the term "responsible agency" includes all public agencies other than the lead agency that may have discretionary actions associated with the proposed project. For the East Brawley Geothermal Development project, these agencies will likely include the following:

- City of Brawley
- Imperial County Air Pollution Control District
- Regional Water Quality Control Board – Region 7
- California Department of Fish and Game
- Imperial County Certified Unified Program Agency
- Imperial County Department of Public Health

For the purposes of CEQA, the term "trustee agency" means a state agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. The only potential trustee agency for the proposed project is the California Department of Fish and Game.

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### **1.3 ORGANIZATION AND SCOPE OF THE FINAL EIR**

This document is organized in the following manner:

#### **SECTION 1.0 – INTRODUCTION**

Section 1.0 provides an overview of the EIR process to date and what the FEIR is required to contain.

#### **SECTION 2.0 – EXECUTIVE SUMMARY**

Section 2.0 includes an updated Executive Summary that provides a brief project description and presents a summary table of probable environmental effects of the project.

#### **SECTION 3.0 – COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR**

Section 3.0 provides a list of commenters, copies of written comments (coded for reference), and the responses to those written comments made on the Draft EIR.

#### **SECTION 4.0 – MINOR REVISIONS TO THE DRAFT EIR**

Section 4.0 provides a list of minor edits made to the Draft EIR as a result of comments received.