

## SECTION 1.0

# Introduction

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Contra Costa Generating Station, LLC, (Applicant) proposes to construct, own, and operate a state-of-the-art electrical generating plant in Oakley, Contra Costa County, California. The Contra Costa Generating Station (CCGS) will be a state-of-the-art natural gas-fired, combined-cycle electrical generating facility rated at a gross nominal generating capacity of 624 megawatts (MW).<sup>1</sup> The facility will use General Electric's (GE's) latest "F" technology platform, which provides superior operating flexibility to allow the plant to rapidly respond to loading changes that will result as more intermittent renewable resources are integrated into the grid.

The facility will be located in Oakley, Contra Costa County, California, on a 21.95-acre parcel (the project site) that is currently part of a larger 210-acre parcel owned by E. I. du Pont de Nemours and Company (DuPont). The project site is on land that is zoned Heavy Industrial. The City of Oakley, formed in 1999, has developed its General Plan and has designated the entire DuPont property a redevelopment zone, but has not formally rezoned the DuPont property. Under the City's General Plan, the land use designation for the project site is Utility Energy. The City's zoning ordinance, in addition, designates a Utility Energy zoning district. According to the General Plan:

The Utility Energy designation allows for power plant uses involved in the clean production of electricity utilizing the best available combustion turbine technology (Oakley 2020 General Plan, Land Use Element, p. 2-17).

The CCGS site is located near the intersection of Bridgehead Road and Wilbur Avenue within the city limits of Oakley, California. Existing surrounding land uses include industrial, vacant industrial, commercial, and agricultural uses. Surrounding land uses include the former DuPont Oakley manufacturing site and marinas along the San Joaquin River to the north, power plants owned by Pacific Gas and Electric Company (PG&E) and Mirant to the west; vineyards and mixed commercial, industrial, and residential uses to the south, and vineyards and residential uses to the east.

This Application for Certification (AFC) has been prepared in accordance with the California Energy Commission's (CEC) "Information Requirements for an Application" as described in Appendix B of the CEC's *Rules of Practice and Procedure, Power Plant Site Certification and Designation of Transmission Corridor Zones* (CEC 140-2008-03, July 2008).

## 1.1 Project Objectives

The CCGS would provide needed electric generation capacity with improved efficiency and operational flexibility to help meet northern California's long-term electricity needs. PG&E has identified a near-term need for new power facilities that can be on line by or before 2015

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<sup>1</sup> Approximate facility output with both combustion turbines operating at 100% load at average January conditions (47 degrees F, 73% relative humidity)

and that can support easily dispatchable and flexible system operation. PG&E has recently issued a Request for Offers (RFO) to obtain these energy resources from qualified bidders, and CCGS is participating in this RFO. The CCGS's project objectives are consistent with this need as follows:

- Provide the most efficient, reliable, and predictable power supply available by using combined-cycle natural gas-fired combustion turbine technology capable of supporting the growing power needs of Contra Costa County
- Use state-of-the-art technology to provide operational flexibility and rapid-start and dispatch capability
- Site the project as near as possible to existing 230-kilovolt high-voltage electrical transmission lines and a high-pressure natural gas pipeline
- Site the project near the San Francisco Bay Area load center and minimize the need for constructing new transmission lines
- Minimize environmental impacts

## 1.2 Project Location

The project is located in Oakley, eastern Contra Costa County, California at 6000 Bridgehead Road. The project site has recently been created from the nearly 500-acre DuPont property (which is a one-owner property with multiple Assessor's Parcel Numbers). The project site is located in the northwestern quarter of Section 22, Township 2 North, Range 2 East, Mount Diablo Base and Meridian. DuPont has recently obtained a lot line adjustment to create "Parcel A" the 21.95-acre project site and two separate neighboring parcels. The new project parcel has been created from a 210-acre parcel on the larger 500-acre DuPont property. The 210-acre parcel has Assessor's Parcel Number 037-020-012.<sup>2</sup> Maps of these parcels are attached as Appendix 1A.

A list of the property owners located within 1,000 feet of the proposed site and 500 feet of the natural gas pipeline and electrical transmission line is attached as Appendix 1B.

Figure 1.1-1 is a map of the project vicinity, Figure 1.1-2 shows the project location, and Figure 1.1-3 is a photograph of showing the project site in its current condition (as of AFC publication). Figure 1.1-4 is an architectural rendering of the proposed project.

## 1.3 Project Owner

Contra Costa Generating Station, LLC is a limited liability corporation, wholly owned by Radback Energy, Inc. (Radback). Radback is in joint participation with GE Energy, an operating business of the General Electric Company, and Tenaska Inc., the second largest privately-owned power company in the United States. The principals of Radback are a highly experienced team that has permitted more than 7,000 MW of electrical generation in California through the California Energy Commission process. This experience includes the

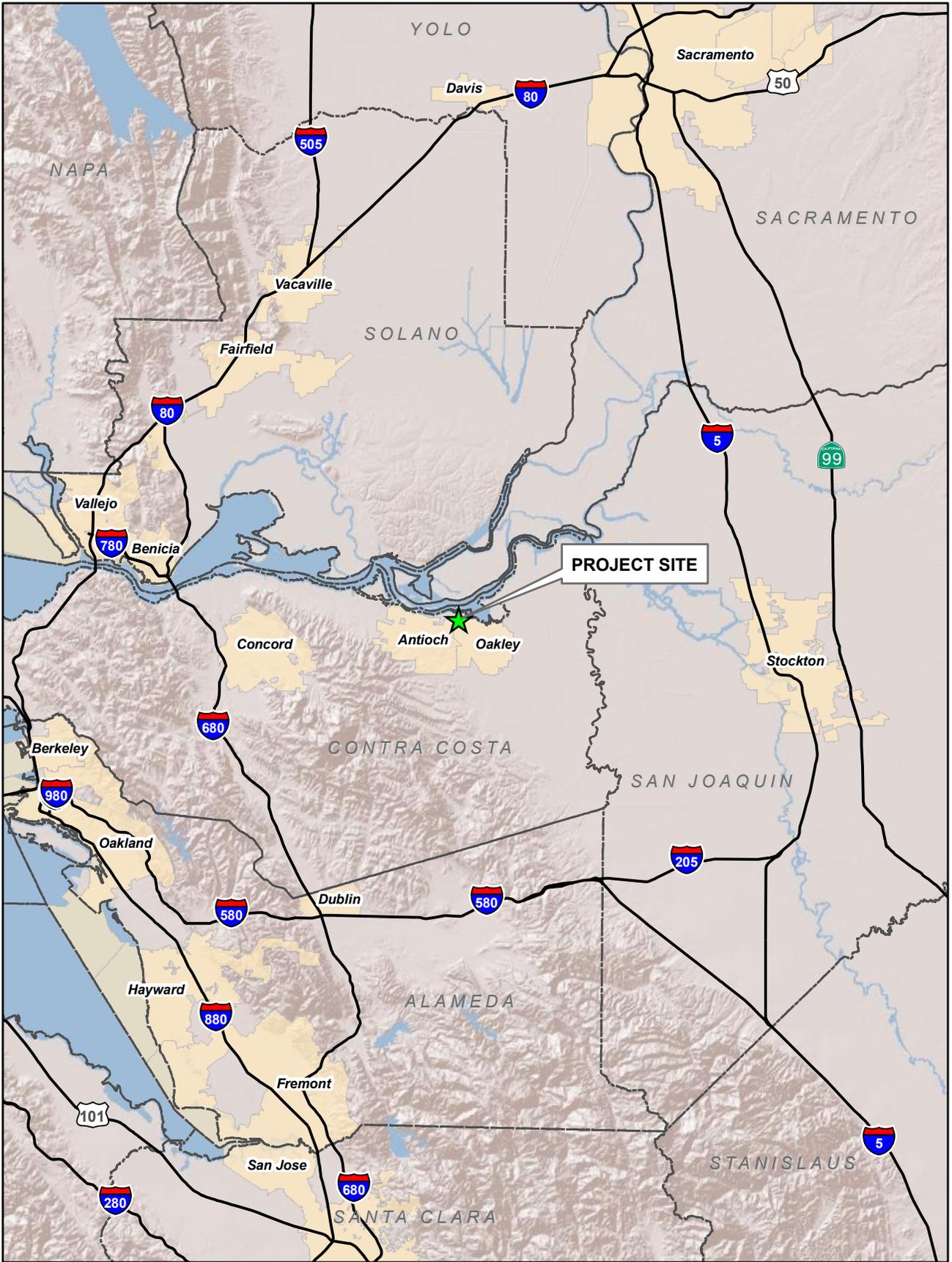
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<sup>2</sup> The new parcel has been approved by the City of Oakley and will soon be filed with Contra Costa County and formally recorded and assigned a unique APN.

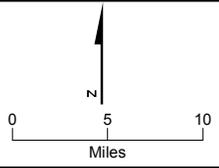
PG&E Humboldt Power Plant and the Calpine Los Medanos Energy Center and the Delta Energy Center, which are both located in eastern Contra Costa County. Tenaska was founded in 1987, is 100 percent employee owned and employs more than 600 professionals. Tenaska has developed and operates numerous gas-fired power generating plants, including approximately 6,450 MW of gas-fired power generation that uses GE equipment.

## **1.4 Persons Who Prepared the AFC**

Persons with primary responsibility for the preparation of each section of this AFC are listed in Appendix 1C.



**LEGEND**  
 ★ PROJECT SITE



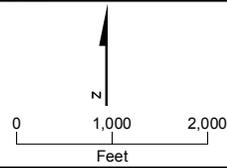
**FIGURE 1.1-1**  
**PROJECT VICINITY**  
 CONTRA COSTA GENERATING STATION  
 OAKLEY, CALIFORNIA



**LEGEND**

-  EXISTING 60kV TRANSMISSION LINE
-  DIRT STOCKPILE AREAS
-  LAYDOWN AREA
-  PROJECT SITE

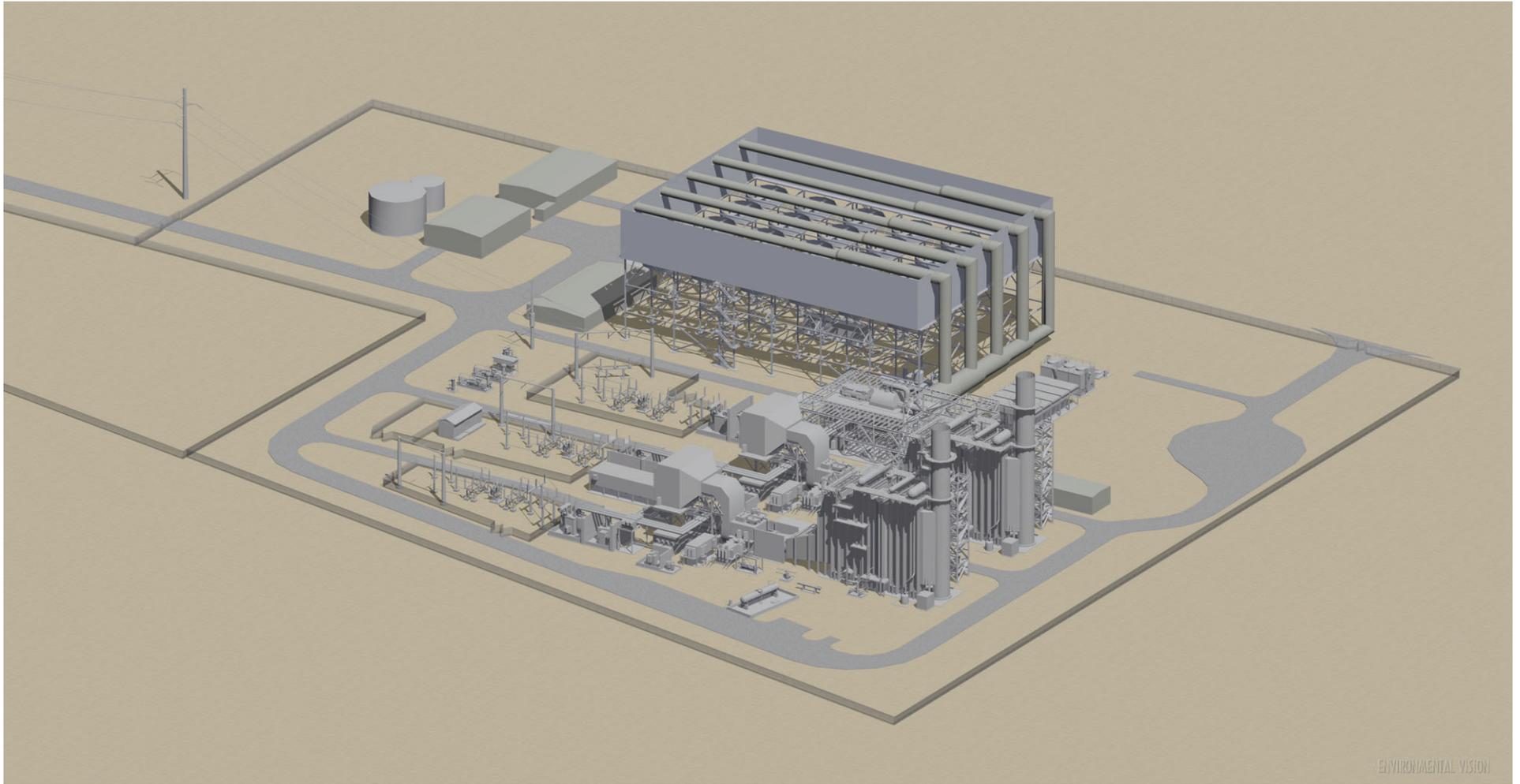
This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.



**FIGURE 1.1-2**  
**PROJECT LOCATION**  
 CONTRA COSTA GENERATING STATION  
 OAKLEY, CALIFORNIA



**FIGURE 1.1-3**  
**PROJECT SITE, VIEW EAST**  
CONTRA COSTA GENERATING STATION  
OAKLEY, CALIFORNIA



Source: Environmental Vision, May 2009

**FIGURE 1.1-4**  
**ARCHITECTURAL RENDERING**  
CONTRA COSTA GENERATING STATION  
OAKLEY, CALIFORNIA