SECTION 2 PROJECT OBJECTIVES

The proposed SJS 1&2 is a solar electric generation project that will generate clean renewable energy produced from heat derived from the collection of solar radiation and the combustion of biomass, employed to power a conventional steam turbine cycle. The Project has been designed and developed to conform to the requirements of two 20-year PPAs between PG&E and the Applicant. The Project objectives are to generate and sell clean, renewable electricity in accordance with the PPA contractual requirements and State of California legal and regulatory requirements. The following discussion gives the background pertinent to the PPAs for the sale of power from the Project.

2.1 UTILITIES' REQUIREMENT TO PROCURE RENEWABLE POWER

The main objective of the Project is to provide clean, renewable electricity to the state of California. The Project will assist the state in meeting the objectives mandated by the Renewables Portfolio Standard (RPS) Program and the California Global Warming Solutions Act. The Project will also address other local mandates that California's electric utilities have adopted for the provision of renewable energy. The following pieces of state legislation relating to renewable energy are relevant to the Project.

- 2002: Senate Bill 1078 established the RPS Program, which requires 20 percent of the electricity sold by regulated California utilities to be generated from renewable energy by 2017.
- 2003: Energy Action Plan I accelerated the 20 percent deadline to 2010.
- 2005: Energy Action Plan II examined a further goal of 33 percent by 2020. Assembly Bill 200 modified some requirements for electric corporations that serve customers outside of California and have 60,000 or fewer customer accounts in California.
- 2006: Senate Bill 107 codified the accelerated 20 percent deadline into law.

To achieve these targets, the state's electric utilities, under the direction and oversight of the California Public Utilities Commission (CPUC) and the CEC, initiated several processes to competitively select renewable power projects that would minimize costs for their customers, minimize effects to the existing electricity system, and comply with state and federal permitting requirements. These utilities have signed several PPAs as a result of this procurement process. The Applicant has signed two initial 20-year contracts with PG&E under which PG&E will buy all the energy produced from this Project's two 53.4 MW Plants.

To date, the CPUC has addressed its responsibilities in implementing the RPS in R.01-10-024, Order Instituting Rulemaking to Establish Policies and Cost Recovery Mechanisms for Generation Procurement and Renewable Resource Development, and R.06-02-012, Order Instituting Rulemaking That Is Specific to Renewables, which replaced earlier proceeding R.04-04-026.

In response to the RPS procurement process, the Applicant investigated potential sites throughout California that were suitable for the development of a utility-scale solar hybrid electric generating facility, particularly those sites that were near transmission substations and in areas of good solar direct normal insulation and adequate biomass supply.

The location selected for the Project is ideally suited for solar hybrid generation, given the high availability of solar energy at the site throughout the year, the level site topography, the abundant local agricultural waste, the ease of site access, the minimum effect of the Project on environmental resources, and the availability of transmission capacity from the nearby PG&E Gates Substation.

2.2 POWER PURCHASE AGREEMENT

Specific provisions of each of the PPAs between PG&E and SJS 1&2 are described below.

- The initial contract term is 20 years.
- PG&E commits to purchase all the output of each 53.4 MW capacity solar hybrid power Plant.
- The Plants will be situated adjacent to each other on approximately 640 acres of land in southwestern Fresno County, California.
- Each Plant is to be on-line, as defined in the respective PPA, and available for the utility to begin dispatching into the grid on or before December of 2009.

2.3 GREENHOUSE GAS REDUCTION

Because global climate change poses a serious environmental and economic threat, California's governor and legislature have approved legislation to reduce California's contribution to greenhouse gas emissions. Under legislation approved in 2006 (Assembly Bill 32, Nunez, California Global Warming Solutions Act of 2006), the state established a goal of reducing its greenhouse gas emissions to 1990 levels by 2020. The California Air Resources Board (CARB), working with other agencies (including the CEC and CPUC), is developing a program that will achieve this goal. State agencies are currently considering a "cap-and-trade" system to reduce greenhouse gas emissions from several sectors of the California economy, particularly the electricity sector. Several western states, including California, have formed the Western Climate Initiative, which has the objectives of reducing regional greenhouse gas emissions to 15 percent below 2005 levels by 2020 and enacting a regional cap-and-trade system. Currently, this system is focused on the region's electric utilities.

From both a state and a regional perspective, the Project will contribute to reductions in greenhouse gas emissions from the electricity sector. The Project will provide 106.4 MW of additional generating capacity and produce virtually no greenhouse gas emissions. The Project could also assist PG&E to meet a portion of its obligations under a state or western regional emissions reduction program. The nature of the Project technology is carbon neutral: solar energy generation has no air emissions and biomass combustion is regarded by regulatory agencies as carbon neutral, since the carbon contained in the fuel and released by its combustion will have been acquired directly from the atmosphere. This means that the Project can reduce the greenhouse gas emissions associated with meeting the electricity needs of PG&E's customers.

2.4 OBJECTIVES SUMMARY

Based on the factors discussed above, project objectives are as follows:

- Provide up to 106.8 MW of renewable electric capacity under two 20-year PPAs with PG&E;
- Contribute to the 20 percent renewables RPS target set by California's governor and legislature;
- Assist in reducing greenhouse gas emissions from the electricity sector;
- Contribute to meeting California's future electric power needs; and
- Assist the California Independent System Operator (CAISO) in meeting its strategic goals for the integration of renewable resources, as listed in its Five-Year Strategic Plan for 2008-2012 (CAISO 2007).

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