

6450-01-P

DEPARTMENT OF ENERGY

Western Area Power Administration

Record of Decision for the Interconnection of the Sutter Power Project with the Western Area Power Administration's Keswick-Elverta/Olinda-Elverta 230-kilovolt Double-Circuit Transmission Line

AGENCY: Western Area Power Administration, DOE.

ACTION: Record of Decision.

**SUMMARY:** The Western Area Power Administration (Western) prepared this Record of Decision in response to a request submitted to Western for a direct interconnection of Calpine Corporation's (Calpine) proposed Sutter Power Project (SPP) with Western's electric transmission system. In response to this request, Western completed an Interconnection Feasibility Study that determined that Western would need to build certain direct interconnection facilities, and make modifications of associated facilities and operational adjustments to its transmission system to accommodate the SPP generation. Western has decided to move forward on an Interconnection Agreement with Calpine for the SPP including agreements for making the necessary modifications to Western's transmission system. Western has determined that no significant environmental impacts will result from the construction, operation, and maintenance of the SPP or its ancillary facilities. These facilities include a natural gas pipeline, a new switching station, and approximately 4 miles of new 230-kilovolt (kV) transmission line. This transmission line will act as a generation tie line. Western prepared this Record of Decision in accordance with the Council Environmental Quality regulations for implementing the National Environmental Policy Act (NEPA) (40 CFR parts 1500-1508), and Department of Energy Procedures for Implementing NEPA (10 CFR part 1021).

**FOR FURTHER INFORMATION CONTACT:** Ms. Loreen McMahon, Environmental Project Manager, Sierra Nevada Customer Service Region, Western Area Power Administration, 114 Parkshore Drive, Folsom, CA 95630-4710, telephone (916) 353-4460, email: mcmahon@wapa.gov.

**SUPPLEMENTARY INFORMATION:** Western is the lead federal agency under NEPA for the SPP. The California Energy Commission (CEC), a regulatory agency of the State of California, has the statutory authority to license thermal powerplants of 50 megawatts (MW) or more and is the State lead agency for the SPP. CEC prepares environmental documentation equivalent to the California Environmental Quality Act. Western and CEC determined that joining the two processes would provide many benefits to the public. The CEC and Western released a joint Draft Environmental Impact Statement (EIS)/Final Staff Assessment (FSA) in October 1998, and subsequently held joint hearings on that document in November and December 1998. Following the release of Western's Draft EIS, Western determined that the next

document in the CEC process, the Presiding Member's Proposed Decision (PMPD), would be an inappropriate vehicle for Western to present responses to comments on the Draft EIS. Western was concerned that this may appear that Western had predetermined the outcome of the review process. Therefore, Western prepared its own Final EIS, with input from the CEC.

Western released the Final EIS in April 1999 (DOE/EIS-0294). Western identified Calpine's proposal as the preferred alternative. Calpine proposes to construct the SPP in Sutter County, California, on a portion of a 77-acre parcel of land owned by Calpine. The SPP project would consist of a nominal 500 MW net electrical output natural gas-fired, combined cycle generating facility. The powerplant and Western's Keswick-Elverta and Olinda-Elverta double-circuit 230-kV transmission lines would be interconnected by a generation tie line consisting of

approximately 4 miles of 230-kV transmission line and a 230-kV switching station at some point south and west of the plant. This generation tie line would be constructed as a double circuit transmission line, but initially operated as a single circuit. A new 12-mile natural gas pipeline would be constructed to provide fuel for the project. SPP would be a "merchant plant", selling power on a short-term and midterm basis to customers, and on the spot market. Calpine will assume all economic costs. Power produced by this plant would be sold at the market price and made available to all market participants.

### Description of Alternatives

During the environmental analysis, the CEC siting process developed 11 siting alternatives to the proposed location. Seven locations were dismissed as infeasible alternatives using selective factors included zoning issues, economic factors (whether it appeared feasible that Calpine could acquire the alternative site), and other environmental factors. The four remaining alternate sites were compared to the unmitigated impacts of the proposed SPP location. The potential impacts to each sensitive issue (water, air, natural resources, cultural resources, visual, noise, etc.) were analyzed and discussed in some detail in the Draft EIS/FSA.

System alternatives were also proposed and developed as mitigative measures to the original proposal. The greatest potential for significant impacts in the original proposal was to water resources and associated biological impacts to aquatic dependent species. The project was originally planned to draw an average of 3,000 gallons of water per hour, cycle it 2.5 times through the plant for cooling and steam generation, then discharge the effluent into the surface drainage system currently used for agricultural irrigation runoff which drains into the Sutter Bypass. This discharge had the potential to have an adverse biological effect to species that use the Sutter National Wildlife Refuge. In response, Calpine agreed to design the plant with a 100 percent dry cooling system. This alternative would reduce water usage by 95 percent and discharge no water to the surface drainage system. This would alleviate the impacts of the plant on aquatic resources and on sensitive species.

A second system alternative was proposed to mitigate air pollution associated with the plant. Under the original alternative, the SPP would have an increased impact on ozone precursors including nitrous oxide (NOx) and airborne particulate matter (PM10). Sutter County is currently in a non-attainment area for PM10. Calpine proposed a series of mitigative measures to satisfy the concerns of the CEC, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board, and the Feather River Air Quality Management District. These included measures such as the dry cooling design that reduces the production of PM10 by plant operations to near zero. Calpine also has agreed to adhere to stringent EPA control technology recommendations for ozone precursors (including NOx), and has developed a strategy to utilize emission offsets (Emission Reduction Credits) to fully mitigate the remaining releases of pollutants.

The Draft EIS/FSA identified one issue as having a significant adverse impact that could not be mitigated. Based upon the analysis of the CEC staff, it was believed that the plant site and the transmission lines would have an adverse impact on the visual resources of the project area. The analysis concluded the impact to a very few individuals at one particular location were great enough to raise the level of the visual impacts to significant. However, the CEC concluded in its PMPD that the Draft EIS/FSA analysis did not take into account the larger viewshed of the area and determined that the visual impacts were, therefore, not significant. Western agrees with this conclusion.

A final issue concerned the impacts to existing wetlands at the proposed site location. Region IX of the EPA expressed concerns over the wetland impacts of the project proposal. These wetlands are within the original 77-acre parcel owned by Calpine. This parcel had been a seasonally flooded rice field when the existing Greenleaf I plant was constructed in 1985, but the portion of the parcel not built upon had been left fallow. The SPP will fill 5.83 acres of these former rice fields. The EPA pointed out that there was an alternative presented in the Draft EIS/FSA that would avoid impacts to all wetlands. However, that alternative was considered infeasible because Sutter County would not likely permit a conversion of currently cultivated agricultural land to industrial use, the landowners stated

their strong opposition to selling to Calpine for any reason, and this location had the likelihood of impacting the nearby Sutter National Wildlife Refuge.

Western has determined that the proposed action, with the system alternatives discussed above, is the environmentally preferable alternative. This alternative, with the mitigative measures outlined below, will not have a significant effect on any portion of the human environment.

### Mitigation Measures

Western and the CEC have detailed 165 different Conditions of Certification, or mitigative measures, to reduce the impacts of the SPP. Not all of these conditions are included to reduce significant environmental impacts, some are merely intended to apply to the SPP as standard operating procedures. These conditions of certification are part of the standard certification process of the CEC. However, the following presents an overview of the mitigative measures that Calpine will adopt to reduce the environmental impacts of the SPP.

In terms of impacts to air resources, 44 separate conditions will apply to the construction and operation of the SPP. The plant itself will use the air-cooling alternative. Calpine must take a number of measures to reduce or avoid fugitive dust

emissions during the construction phase of the project, such as paving roads, wetting open excavations, washing vehicles, and others. Calpine must obtain Emission Reduction Credits greater than 100 percent of the plant's emissions for all criteria pollutants. Other control technologies will reduce emissions to the lowest levels according to the best available control technology. Any potential for air emissions beyond the agreed upon levels, such as shutting down control equipment, or breaking or repairing this equipment, requires notification to the local air quality control district. Calpine must mitigate land use issues by construction and operation controls, such as using earth berms, vegetation screening, and lighting controls to reduce the impacts on the surrounding residents. Calpine must place the transmission lines to reduce to the greatest degree impacts to local farming practices. Calpine must also provide a new aircraft landing strip for use by the local farmers.

Calpine has agreed to carry out certain measures to lessen the impacts to the socioeconomic resources. These include payments to the local fire protection district for new equipment and training for firefighters. The analysis in the Final EIS concluded that there was not a significant visual impact imposed by the project provided that certain measures were taken to lessen some of the impacts. Calpine must paint the existing plant, the new plant, and any other structures such as tanks, stacks, and fences with non-reflective colors so that they blend into the surroundings better. They must hood or direct exterior lighting onto surfaces to minimize light pollution, including fixtures to the existing plant. They must landscape property to screen most of the plants from outside viewers. Finally, to the extent possible, they must not place transmission line structures directly in front of residences or in direct line-of-sight from a residence to the Sutter Buttes. Though the impacts to biological resources are expected to be minimal, Calpine must provide a biological monitor on site during all construction phases, and provide environmental awareness training for all employees. Certain restrictions must be observed, such as timing and monitoring of activities to minimize impacts to the giant garter snake, Swainson's hawk, and migratory birds. Finally, Calpine must provide funding to Wildlands, Incorporated, to acquire and manage lands to compensate for loss of habitat.

Using the dry-cooling alternative will minimize overall impacts to water resources, and the plant must not discharge any wastewater into streams or surface water. The plant will provide sufficient on site stormwater retention to control a 10-year, 24-hour storm event so that the plant does not contribute to drainage problems. Calpine must

mitigate impacted wetlands by purchasing land through Wildlands, Incorporated, at a ratio of one acre of compensatory wetlands for every acre disturbed.

Qualified professionals must monitor all construction-related activities in all areas determined to be sensitive for cultural and paleontological resources.

Specific mitigative measures have been proposed for the actions needed to accommodate the interconnection with Western's transmission system. The Mitigation Action Plan, prepared under 10 CFR § 1021.331 and adopted as part of this Record of Decision, details the specific mitigation needed for the interconnection. These include the conditions placed upon the siting of the transmission line, which are discussed above. Also adopted as part of the environmentally preferred alternative, is the transmission line route with the switching station at the end of O'Banion Road.

All practicable means have been taken to avoid or minimize the environmental harm of the environmentally preferred alternative. No significant environmental impacts will result from the construction, operation, and maintenance of the SPP or its ancillary facilities.

Dated: May 25, 1999

Michael S. HacsKaylo

Administrator