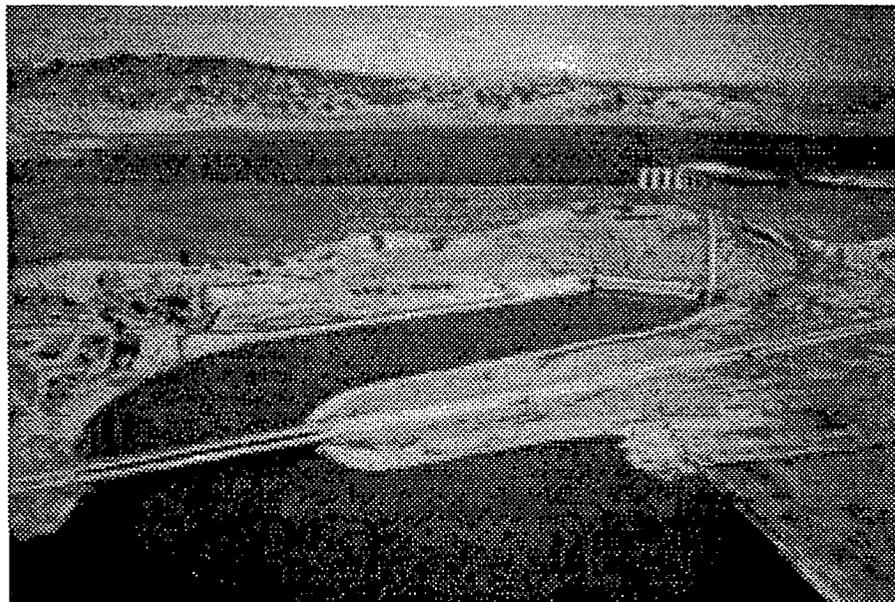


Bureau of Reclamation's **Power Program**

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## SAN LUIS (WILLIAM R. GIANELLI) PUMPING-GENERATING PLANT



### San Luis (William R. Gianelli) Pumping-Generating Plant

**Plant Contact:** State of California

**Plant Address:** William R. Gianelli Pumping-Generating Plant  
Los Banos, CA

**Telephone Numbers:** Phone: (209) 826-1277

**Reclamation Region:** Mid-Pacific

**NERC Region:** Western Systems Coordinating Council, California-Southern Nevada Power Area

**PMA Service Area:** Western Area Power Administration, Sierra Nevada Region

**Project Authorization:** Funds for construction of the initial features of the Central Valley Project were provided by the Emergency Relief Appropriation Act of 1935 (49 Stat. 115). The Secretary of the Interior authorized the project and the President approved it on December 2, 1935.

The San Luis Unit, West San Joaquin Division, was authorized as a part of the Central Valley Project on June 3, 1960, Public Law 86-488.

**Project Purposes:** The Central Valley Project, one of the Nation's major water conservation developments, extends from the Cascade Range on the north to the semiarid but fertile plains along the Kern River on the south. Initial features of the project were built primarily to protect the Central Valley from crippling water shortages and menacing floods. New project units were built to provide water and power to match the continued growth of the State.

Although developed primarily for irrigation, this multiple-purpose project also provides flood control, improves Sacramento River navigation, supplies domestic and industrial water, generates electric power, conserves fish and wildlife, creates opportunities for recreation, and enhances water quality.

**Plant Location:** San Luis Pump-Generating Plant is located in Merced County, California, on the San Luis Creek, 12 miles west of Los Banos, California.

**Plant Facts:** This joint Federal-State facility, located at San Luis Dam, lifts water by pump turbines from the O'Neill forebay into the San Luis Reservoir. During the irrigation season, water is released from San Luis Reservoir back through the pump-turbines to the forebay and energy is reclaimed. Each of the eight pumping-generating units has a capacity of 63,000 horsepower as a motor and 53,000 kilowatts as a generator. As a pumping station to fill San Luis Reservoir, each unit lifts 1,375 cubic feet per second at 290 feet total head. As a generating plant, each unit passes 1,640 cubic feet per second at the same head.

**Plant Purpose:** The San Luis Pump-Generating Plant pumps Central Valley Project water for off-stream storage.

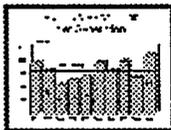
**Plant History:** The powerplant is operated and maintained by the State of California under an operation and maintenance agreement with Reclamation. The pumping-generating plant name has been changed by the State of California to *William R. Gianelli*.

**Present Activities:** Normal operations. The pump-generating plant pumps water from O'Neill to San Luis Reservoir. Offsets Central Valley Project pumping loads with generation during releases to O'Neill Forebay.

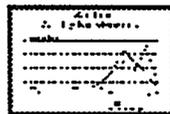
**Future Planned Activities:** None

**Special Issues:** Speed changes on two units have resulted in increased efficiency above 300 foot head. California State has requested that one to two more units be reconfigured for operation at higher speeds.

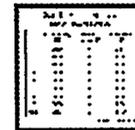
**River:** San Luis Creek  
**Plant Type:** Conventional  
**Powerhouse Type:** Above Ground  
**Turbine Type:** Francis  
**Original Nameplate Capacity:** 424,000 kW  
**Capacity:** 202,000 kW  
**Reclamation share:**  
**Installed Capacity:** 424,000 kW  
**Reclamation share:** 202,000 kW  
**Year of Initial Operation:** 1968  
**Age:** 29 years  
**Reclamation share of Net Generation: (FY 1996)** 216,594,112 kWh  
**Rated Head:** 323 feet  
**Plant Factor: (FY 1996)** 12.2 percent  
**Remotely Operated:** No  
**Production Mode:** Seasonal Base



Fiscal Year Net Generation



Monthly Net Generation



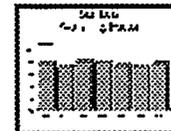
Generators



Workforce



Wholesale Firm Rate



Availability Factor