

Folsom Powerhouse State Historic Park



Our Mission

The mission of the California Department of Parks and Recreation is to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

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Governor

MARY D. NICHOLS
Secretary for Resources

RUTH COLEMAN
Acting Director, California State Parks



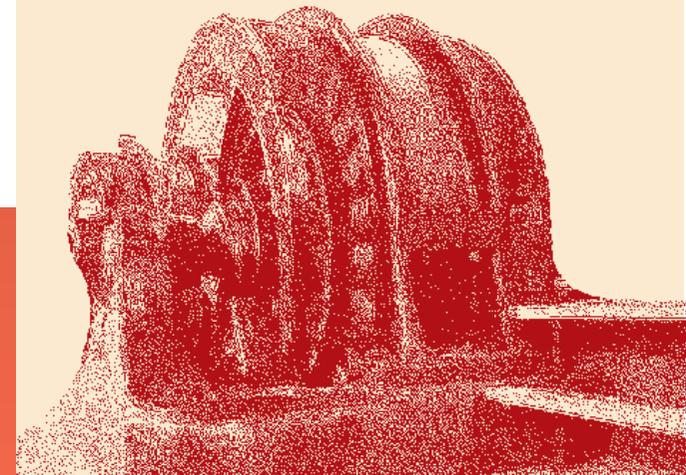
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Your visit to **Folsom Powerhouse State Historic Park**, on a scenic bluff

overlooking the west bank of Lake Natoma, will take you back in time to a pivotal and colorful period in California's history. The 1895 plant, one of the oldest hydroelectric facilities in the world, was the nation's first power system to provide high-voltage alternating current over long-distance transmission lines for major municipal and industrial use. Its significance has earned it a place on the National Register of Historic Places. You will see how electricity was generated by falling water and transmitted 22 miles to Sacramento to power the city's streetcars, factories, streetlights, railroad shop and homes. This pioneering feat became the prototype for today's electrical transmission systems.

WHEN THE SUN WENT DOWN, MOST PEOPLE WENT TO SLEEP

In an age when so much in our lives is dependent upon a vast array of electrically powered machines, medical and communications equipment, appliances and computers, we sometimes forget what life was like before electricity. Before the late 1800s, those who could afford it used candles, whale oil lamps and gaslights to light the darkness. Others just used campfires or fireplaces. When we reflect today on all the ways the availability of electricity has changed our lives over the past century, we begin to appreciate the significance of the Folsom Powerhouse. For the first time in history, this new source of

energy made it possible for ordinary people to enjoy the light and comfort that electricity could bring at any time of day.

THE POWERHOUSE STORY

Horatio G. Livermore came to California in 1850 seeking gold. By 1861, realizing that he could make his fortune more easily by securing water rights on the American River, he and his sons obtained control of the Natoma Water and Mining Company. Livermore's vision of floating logs down the river to a sawmill he would build in Folsom would require construction of a dam and canal to get the logs to the mill. At the same time, California was looking for a site to build a prison. In exchange for convict labor on the dam and canal, Livermore gave the state land for what is now Folsom Prison. Another of his enterprises provided electricity to Sacramento, and by 1885 the Natoma Water and Mining Company's steam-powered electric generators were lighting the Capitol grounds, four downtown streets and a bandstand in the park.



Powerhouse generator

Over time, horse-drawn cars gave way to electric railways, but the coal needed to power their steam generators was expensive. After H. P. Livermore assumed leadership of his father Horatio's businesses, he realized that instead of using water power to turn water wheels for factories in Folsom, water from the American River could better be used to generate electricity for transmission to Sacramento. Although power had never before been transmitted more than about five miles, Livermore found manufacturers who could design a workable system. In 1892 he incorporated the Sacramento Electric Power and Light Company to build the Powerhouse and construct the long-distance power line to his distribution system in the capital city.

A TIME TO CELEBRATE

The arrival of electric power at Station A in Sacramento on the morning of July 13, 1895, was a major event that called for a major celebration. September 9—California's Admission Day—was set for a "Great Electric Carnival." People poured into Sacramento from throughout Northern California—30,000 from San Francisco alone. As darkness fell, the people of Sacramento and many visitors lined the brilliantly lighted streets in eager anticipation of the oncoming parade. The State Capitol building glowed with electric lights outlining the facade and the ribs of the dome, where a cluster of arc lights illuminated a dazzling display

that could be seen for nearly fifty miles. The much-awaited floats that delighted the crowds with their ingenious arrangements of lights or mechanical equipment were drawn by electric trolley cars powered by the new electricity from Folsom.

57 YEARS OF CONTINUOUS SERVICE

In 1903 the Livermores' firm sold out to the California Gas and Electric Corporation (immediate predecessor of Pacific Gas and Electric Company), which operated the Powerhouse until November 1952. That year the old dam was destroyed during construction of the new Folsom Dam, and the Powerhouse was shut down after 57 years of continuous service. In 1958, PG&E donated the Powerhouse to California State Parks for preservation and interpretation of its historic values. For tour reservations, call (916) 985-4843.

THE HISTORIC BUILDINGS

The two-story brick and granite Powerhouse looks much as it did in 1895. On your self-guided tour of the Powerhouse, you'll see



Grinding Rock

that the magnificent generators, wooden flumes, and the Tennessee marble-faced control switchboard stand as imposingly as they did over a hundred years ago. Historical photos and interpretive exhibits explain how the Powerhouse worked. Visit the restored Blacksmith Shop between the Superintendent's Office and the Bookstore.

Below the Powerhouse, at the edge of Lake Natoma, you'll also see an ancient grinding rock used by the Maidu to prepare their acorn meal. Long before the arrival of Europeans, the area surrounding the Folsom Powerhouse was home to the Southern Maidu. Situated on a river and with a moderate climate, the area provided the local inhabitants with a variety of fish, birds, deer, roots, fruits and nuts.

HOW DID THE POWERHOUSE GENERATE ELECTRICITY?

Water was diverted from a dam on the American River and flowed down a two-mile canal to the Powerhouse's forebay (A). In the forebay, sand, gravel and other debris settled to the bottom, and the clean water entered the large pipes of the penstocks (B), picking up tremendous speed on its 55-foot drop to the turbines (C). Two hundred fifty gallons of water per second passed through the turbines, spinning the shafts connected to the generators (D) at 300 rpm to generate 800 volts of electricity. Electricity then flowed through wires connected to the control panel (E), and at the flip of a switch, it was relayed from the generators to the transformers, where its power

