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RED MOUNTAIN BAR PUMPED STORAGE PROJECT

Artist rendering of the proposed project with maximum water elevation. The lower pool is Don Pedro Reservoir

Red Mountain Bar Pumped Storage Project

Continuing the legacy of maximizing the use of water resources to generate hydroelectric power, TID is exploring a pumped storage project to generate electricity during peak demand. The proposed Red Mountain Bar Pumped Storage Project is located approximately 10 miles south of Sonora in Tuolumne County, California.

The project proposes to use the existing Don Pedro Reservoir as the lower pool from which to pump water to a newly constructed upper reservoir outfitted with an underground powerhouse, a water conveyance tunnel, and transmission lines. The project would include constructing a 1700 foot-long dam about 465 feet high across a ravine to create a reservoir with a surface area of 240 acres. The water storage capacity would be 25,000 acre-feet and the electrical generating capacity at 880 megawatts. While Don Pedro Reservoir is used for irrigation water storage, flood control, power production and recreation, the Red Mountain Bar Pumped Storage Project would be used strictly for power production.

Preliminary permits from the Federal Energy Regulatory Commission have been received to study the project. TID and MID agreed to share development costs on the basis of a 65% - 35% split with TID assuming the greater share and serving as the lead agency. The Districts estimate the costs off further studies, tests, surveys, maps, plans and

What is a Pumped Storage Project?

Pumped-storage projects differ from conventional hydroelectric projects in that they pump water from a lower reservoir to an upper reservoir when demand and price for electricity is low. Water is then stored in the upper reservoir to release and generate power during periods of peak demand. For example, in the summer, water is released during the day to generate power to satisfy the high demand for electricity for air conditioning. At night, when demand decreases, water is pumped back to the upper reservoir for use the next day.

These projects are uniquely suited for generating power when demand for electricity is high and for supplying reserve capacity to compliment the output of other electric plants and forms of renewable resources. The ability to start generating electricity at this type of project is almost immediate, thus serving peak demand for power better than more traditional plants that require significantly more start-up time and renewable resources that have the possibility to not produce due to weather conditions.

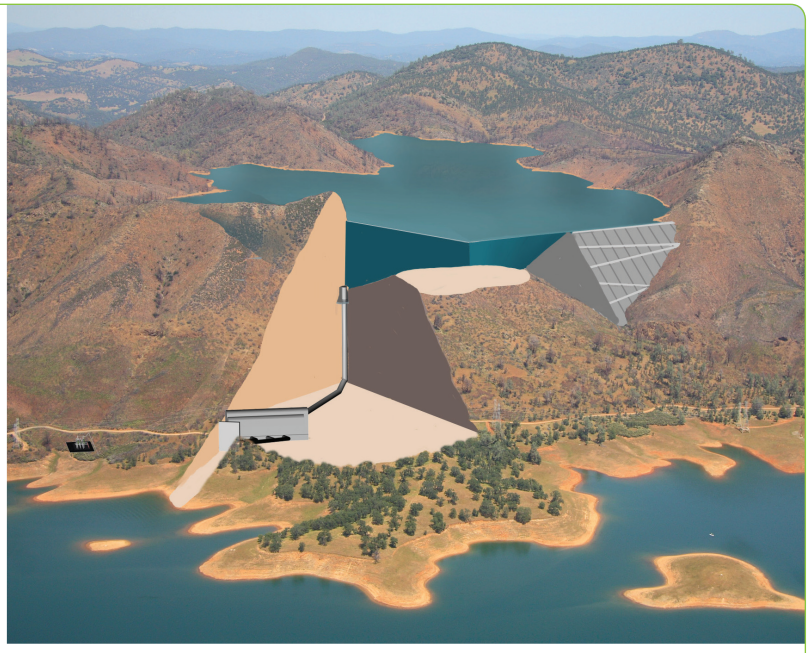
specifications will range between $1.5 million to $2 million. The estimated total cost of the project is $1.3 billion.

As envisioned, the Red Mountain Bar Pumped Storage Project would more fully utilize the water resources of Central California to provide a firm source of peaking capacity. It will also serve as a renewable resource backup. When wind and solar energy are not producing the project could supply power immediately. The Districts intend to work closely with all pertinent parties to ensure that the operations within the existing Don Pedro Reservoir, as well as downstream users, are in no way negatively impacted and ensure that all interested entities view the proposed project as an asset.

Above: View of what the upper reservoir dam might look like from a boat in the existing Don Pedro Reservoir.

Although the addition of renewable resources is vital to reducing dependence on fossil fuels, maintaining electric system reliability remains a core focus for TID. The nature of the pumped storage project will increase the reliability of the electric grid with the ability to quickly replace solar and wind generated electricity that could vary significantly with weather conditions.

For more information and to view a 3D animation regarding the pumped storage project visit www.tid.com.



Above: An illustration that demonstrates the underground facilities.

Project Features

Lower Reservoir - Don Pedro Reservoir	
Owners	TID, MID
Operator	TID
Year Constructed	1971
Capacity	2,030,000 acre-feet
Dam Type	Earth and Rockfill
Dam Height	585 feet
Dam Length	1900 feet
Red Mountain Bar	
Upper Reservoir	
Water Surface Area	240 acres
Reservoir Capacity	25,000 acre-feet
Max. Dam Height	465 feet
Dam Length	1700 feet
Embankment Type	Concrete Face
Water Conveyance Tunnel	
Type	Concrete or Shotcrete Lined
Length	0.5 Mile
Diameter	34 feet
Powerhouse	
Type	Underground
Installed Capacity	880 MW
Energy Storage	17,600 MWH
Turnaround Efficiency	80%
Transmission	
Type	Overhead with Steel Towers
Point of Interconnection	Proposed Redwood Junction
Length	47 Miles
Voltage	230 kV