

Should solar panels be installed over canals?

Installing solar panels over the canals makes both systems more efficient. The solar panels would reduce evaporation from the canals, especially during hot California summers. And because water heats up more slowly than land, the canal water flowing beneath the panels could cool them by 10 F, boosting production of electricity by up to 3 percent.

Should California cover water canals with solar panels?

As we explained in a 2021 study, covering these canals with solar panels would reduce evaporation of precious water - one of California's most critical resources - and help meet the state's renewable energy goals, while also saving money.

What is a solar over canal project?

Solar over canals projects involve installing solar panels over water canals to help reduce evaporation and generate clean electricity.

Can solar power develop over canals?

Solar power development over canals is an emerging response to the energy-water-food nexus that can result in multiple benefits for water and energy infrastructure. Case studies of over-canal solar photovoltaic arrays have demonstrated enhanced photovoltaic performance due to the cooler microclimate next to the canal.

Can solar panels save water?

The idea is simple: install solar panels over canals in sunny, water-scarce regions where they reduce evaporation and make electricity. A study by the University of California, Merced gives a boost to the idea, estimating that 63 billion gallons of water could be saved by covering California's 4,000 miles of canals.

Could solar power power California's canals?

At the same time, solar panels across California's exposed canals would provide 13 gigawatts of renewable power annually, about half of the new capacity the state needs to meet its decarbonization goals by the year 2030. California's water conveyance system is the world's largest, serving 35 million people and 5.7 million acres of farmland.



PHOENIX, Ariz. a?? The Biden-Harris administration today announced \$5.65 million from President Biden's Investing in America Agenda for the Gila River Indian Community in Arizona to construct and install solar a?|



Solar panels placed over canals have the potential to create several significant benefits, including: Generating renewable energy; Reducing evaporation losses of the canal; Increasing efficiency and production of solar panels because of the cooling effect of the water beneath the panels; Creating land savings for open space and agricultural use;



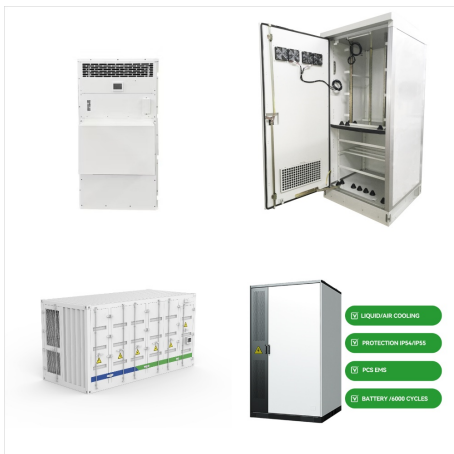
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Solar canal installations will also protect wildlife, ecosystems and culturally important land. Large-scale solar developments can result in habitat loss, degradation and fragmentation, which can harm threatened species such as the Mojave Desert tortoise.



California's efforts got a jump start from a 2021 study published by Bales and his colleagues, who determined that covering the state's canals with solar panels could reduce evaporation by as much