

Chile plans hydropower plant—in desert

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Chile plans to build a hydroelectric power plant in the world's most arid desert—the Atacama—in a revolutionary attempt to generate green energy

Building a \$400-million hydroelectric power plant in the world's most arid desert may seem like an engineering debacle, but Chile sees it as a revolutionary way to generate green energy.

The idea is to take advantage of the Atacama Desert's unique geography to solve one of the most sticky problems of renewable energies like solar and wind power: inconsistency.

The sun is not always shining and the wind is not always blowing, but in long and narrow Chile, there are always mountains next to the sea.

Chilean energy company Valhalla wants to use solar power to pump water from the Pacific Ocean into two reservoirs high in the Andes mountains.

Then it will be allowed to rush back down into a [hydroelectric plant](#) with a capacity of 300 megawatts—enough to power three provinces in Chile, a net energy importer that relies mainly on fossil fuels.

"This is the only place in the world where a project of this kind can be developed," said Francisco Torrealba, the company's strategy manager.

The two mountaintop reservoirs will hold as much water as approximately 22,000 Olympic swimming pools, enough to generate electricity around the clock.

"The technology has been super well tested around the world. It's this particular combination that has never been tried," said Torrealba.

The plant got the green light from environmental authorities last week.

Valhalla is seeking investors and hopes to break ground in late 2016, with an estimated construction timeline of three and a half years.

It is also studying three other areas with similar characteristics.

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