

Hydrogene de France Plans to Outdo Australia's Giant Battery

- Fuel cells, batteries to provide 140 megawatt-hours of storage
- HDF plans 90 million-euro investment in French Guyana

By Francois de Beupuy
(Bloomberg) --

Hydrogene de France, a startup created in 2012, plans to build a plant in French Guyana using solar panels, fuel cells and batteries that will store more renewable energy than the giant Australian battery installed last year by French clean power developer Neoen SAS and Elon Musk's Tesla Inc.

HDF is starting proceedings to build the facility with a storage capacity of 140 megawatt-hours in Mana, a remote town in the west of French Guyana, the company said Monday in a statement. Last year, Neoen installed 100 megawatts of Tesla batteries in Australia, with a capacity of 129 megawatt-hours.

HDF will use electrolyzers that will transform power generated by 55 megawatts of solar panels into hydrogen. The gas will be stored in tanks, and fuel cells will transform it back into electricity when most needed, the company said.

Proponents of fuel cells, which produce electricity by chemically fusing hydrogen with oxygen, say they can run longer than batteries. Unlike gasoline or diesel, they emit just water. The 90 million-euro plant (\$105 million), to be built in 2019 and 2020, would be big enough to supply clean power round the clock for over 10,000 households in French Guyana, the company said.

"We're in a territory which is under-equipped, with a dramatic surge of the population," HDF Head of Strategy Jean-Noel de Charentenay said in an interview. "We're proposing a 100 percent renewable solution that's cheaper than diesel generators."

Seeking Approvals

HDF is starting to seek approvals for the project, he said. Talks over the amount and the price that Electricite de France SA would pay for HDF's power are held under the supervision of the French energy regulator, the executive said.

HDF's plant in Guyana would provide 10 megawatts of power during the day, and just 3 megawatts at night. It would use batteries as secondary storage to provide 13 megawatt-hours of power when there's a surge in demand, typically at the end of the day. The fuel cells for the project will be stored in three freight-size containers, De Charentenay said.

Financing for the project comes from closely held HDF itself, plus partners and banks.