

Elon Musk's wager that Tesla can fix South Australia's blackouts brings the energy future closer

By **Samantha Masunaga and Ivan Penn**

MARCH 10, 2017, 3:45 PM

Tesla Inc. Chief Executive [Elon Musk](#)'s latest gamble may be less futuristic than a Mars trip, but it signals that the energy industry's long-sought vision of large-scale electricity storage may not be that far off.

Musk made a bet that his company can get a grid-connected battery system in South Australia installed and working within 100 days to help alleviate blackouts — and if it can't, he said, the company will do the work for free. He has a reason to be confident: Tesla delivered a slightly smaller system to Southern California Edison in December after only 90 days.

The energy sector anticipates a storage boom but sees use of natural gas plants coupled with solar and wind energy as a bridge to a time when electricity produced by clean energy resources can be collected at a reasonable cost.

Is Musk, again, ahead of his time, or is energy storage finally ready for prime time?

“I would say, ‘Not yet, but getting close,’” said Robert McCullough, an energy consultant who runs Oregon-based McCullough Research. Storage is still too expensive, but multiple companies are competing to push the price lower, he said.

Musk made the wager Thursday night in a brief back-and-forth on Twitter with Australian software billionaire Mike Cannon-Brookes.

Cannon-Brookes had tweeted a link to an [Australian news report](#) that cited Tesla executive Lyndon Rive as saying he would “commit” to installing the megawatt-hours of batteries needed to prevent the recent blackouts in South Australia. Heat waves across the region have caused energy demand to spike, which has put increased pressure on the infrastructure there.

According to the report, Rive said the higher production capacity of Tesla's Gigafactory battery production plant in Nevada could help address South Australia's energy crisis within 100 days of being asked.

Tesla and its partner Panasonic began mass producing lithium-ion battery cells at the Gigafactory two months ago.

“How serious are you about this bet?” Cannon-Brookes tweeted Thursday. “If I can make the \$ happen (& politics), can you guarantee the 100 MW in 100 days?”

Musk responded, “Tesla will get the system installed and working 100 days from contract signature or it is free. That serious enough for you?”

Cannon-Brookes asked Musk to give him seven days to “try [to] sort out politics and funding,” and he suggested Musk send him a price quote — “mates rates.”

Musk’s Tesla Motors bought solar power firm SolarCity last year, creating a one-stop shop for clean-energy customers interested in electric vehicles and solar panels. The combined company is named Tesla. SolarCity was headed by Rive and his brother Peter Rive, who are Musk’s cousins.

Musk often has made grand announcements, but — especially on the autos side — product rollouts haven’t always happened on schedule.

Tesla’s Model X SUV was expected to arrive in early to mid-2014, but it was actually delivered to customers in late 2015 after production difficulties with the “falcon-wing” doors, which open straight out and up from the vehicle.

Analysts also largely expect Tesla’s plans to begin deliveries of its mass-market Model 3 sedan by later this year to slip. Musk himself acknowledged the timeline was ambitious when he first unveiled a prototype of the car in Hawthorne last year, saying he did feel “fairly confident” it would be delivered in 2017 — a statement that drew chuckles from the audience.

On the power side, though, Tesla has shown it can make good on an ambitious plan when it recently unveiled the 80-megawatt-hour storage project at Southern California Edison’s Mira Loma substation in Ontario. Tesla’s delivery in 90 days after signing the contract with Edison last September was hailed as remarkably speedy.

“Aliso Canyon is a good case study of how fast energy storage can be deployed if a bunch of factors and stakeholders are aligned,” said Ravi Manghani, director of energy storage for Boston-based GTM Research.

Manghani said there are “several caveats to that kind of fast delivery,” including clearing regulatory hurdles. But if those obstacles can be overcome consistently, “then I think it’s fair to say that storage has arrived,” he said.

That project has nearly 400 Tesla Powerpack lithium-ion battery units on a 1.5-acre site in Ontario, and it can store enough energy to power 2,500 homes for a day or 15,000 homes for four hours.

The site uses the batteries to store electricity at night and during other off-peak hours so the electrons can be put back into the grid when power use increases.

At the project's unveiling in January, California Public Utilities Commission President Michael Picker described its completion as "unprecedented fast action."

The utilities commission ordered the battery storage units to supplement capacity after the Aliso Canyon natural gas storage went offline.

Aliso Canyon has sat largely idle after experiencing the nation's largest methane leak in October 2015, and regulators and utility companies raised concern about potential blackouts in Southern California.

The Mira Loma project is Tesla's largest storage project. Its second-largest is a 52-megawatt-hour storage facility in Hawaii.

"Everybody's excited about this Australia situation, but we recently completed our two biggest projects," said Alexi Georgeson, a Tesla spokeswoman.

A 100-megawatt-hour project like what is proposed for Australia would require about 500 Powerpacks made up of more than 8 million individual battery cells.

samantha.masunaga@latimes.com

ivan.penn@latimes.com

Twitter: [@smasunaga](https://twitter.com/smasunaga) [@ivanlpenn](https://twitter.com/ivanlpenn)

ALSO

[Wanda's \\$1-billion Dick Clark Productions deal is officially dead](#)

[U.S. gains 235,000 jobs in February; unemployment falls to 4.7%](#)

[Column: GOP marks National Consumer Protection Week by voting to 'obliterate' class-action lawsuits](#)

UPDATES:

3:45 p.m.: This article was updated with additional analysis

11:30 a.m.: This article was updated with more information about Tesla's energy storage project in Hawaii and the Tesla-Southern California Edison energy storage facility in Ontario.

10 a.m.: This article was updated with information about a Tesla-Southern California Edison energy storage project.

8:40 a.m.: This article was updated with information about Tesla's past product delays.

This article was originally published at 8 a.m.

Copyright © 2017, Los Angeles Times

This article is related to: [Elon Musk](#), [Tesla Motors](#), [SolarCity](#)