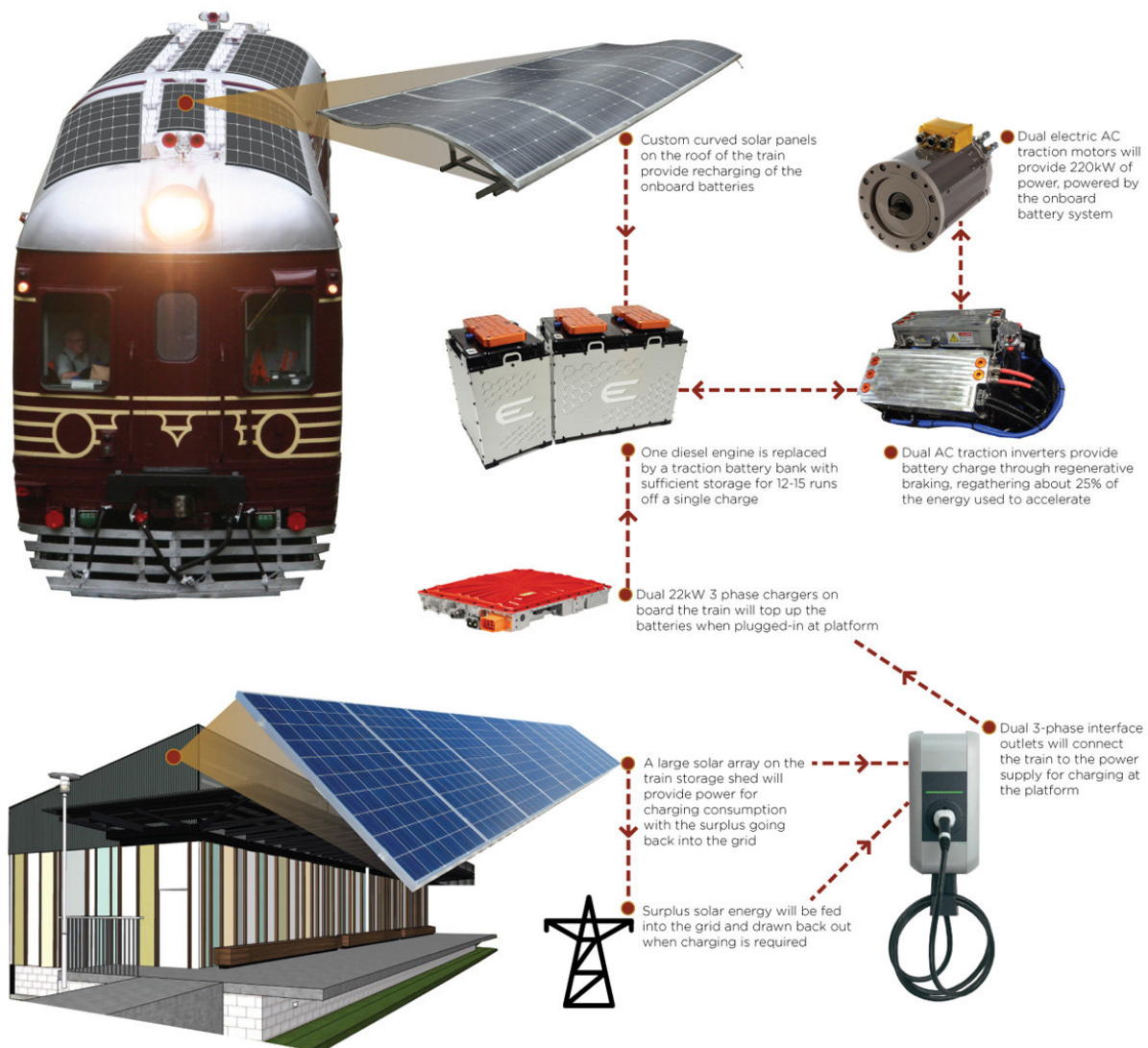


Byron Bay Railroad signals solar train shuttle service open

December 20 2017, by Nancy Owano



Credit: Byron Bay Railroad Company

A solar train has been launched in Byron Bay, Australia. The announcement was sent out by the Byron Bay Railroad Company.

"The solar train was officially launched on 16 December 2017. A limited service is now operating until the full service commences during January 2018. Thank you to all of the people from near and far who have helped us to bring this project to life."

Derek Markham in *TreeHugger* had some details: The company refurbished a 3-kilometer [stretch](#) of tracks, as well as a bridge, between the town of Byron Bay, where a 30kW solar array, battery storage system and charging station has also been installed.

There are light, flexible solar panels, said *RenewEconomy*, which wrote about the train back in October, adding that "the train will run entirely on solar power." Solar panels on its roof help support that; operating on energy from the sun, a diesel engine will be used solely as a back-up, said the railroad company site.

How it works: Solar charged batteries are designed to operate all systems including traction power, lighting, control circuits and air compressors.

Curved solar panels on the roof of the train with the solar array on the storage shed roof [generate](#) energy to power the train. The regenerative braking system recovers around 25% of the spent energy each time the brakes are applied, said the Byron Bay Railroad Company site.

"Like a bank, BBRC's arrays of solar panels will deposit energy and then withdraw when required."

The Byron Bay solar train includes the diesel engine as an emergency backup in the event of a fault in the drive system, said *TreeHugger*.

The train uses [eArche](#) solar panels and a large solar battery bank.

RenewEconomy's Giles Parkinson in October reported on the train and called the amount of battery [storage](#) "considerable."

This is a two carriage train, featuring 1960s vintage country commuter cars, said Parkinson. These are described as "restored vintage" carriages and now with [flexible solar panels](#) on their roofs.

It is a return-shuttle service for a 3-kilometer jaunt (1.86 miles). "There is [capacity](#) for 100 seated passengers, additional standing passengers, seating for people with a disability and luggage room for bikes, prams and surfboards," said the train company.

The run is structured as an hourly service initially. "As the service is not subsidised by Government (all other public transport receives subsidies) the timetable will be reviewed from time to time in line with passenger demand and operating costs."

Actually, the decision to go with a solar powered train is rooted in a need to decide on a solution in general about transport between a beach precinct and township.

"The solar conversion concept came later, after the train was already planned." The community did not want a big diesel engine chugging through the township, said Parkinson.

As for the future, a crosshead in the Monday *Futurism* story about the train says it all: "Short distance, big implications." While this is no cross-country express, it could send a message that solar trains make sense in similar situations.

The trains are on fixed routes and can be quickly recharged at each stop

using electricity generated by static [solar panels](#).

Lou Del Bello, *Futurism*: "The Byron Bay train's short route makes it more of a proof of concept than a fully realized transportation revolution," but Del Bello also added that "One small step for this humble new train means a big step forward for the sector by proving that transport [systems](#) can be fully powered by the Sun."

The train company's site said that "From the outset Byron Bay Railroad Company has supported an extended train service along this branch line and is hopeful that this project will be a catalyst for possible future [service extensions](#). BBRC's focus, however, is to make this 3km section of line operational and cost neutral."

More information: byronbaytrain.com.au/

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