

Nissan turns new Leaf with all-electric car

January 27 2011, by Patrice Novotny



Nissan workers install batteries and other components into the body of Leaf electric vehicle on the company's Oppama plant assembly line in Yokosuka. At first glance the production facility looks like any other but the high-tech facility is home to the production line of the car giant's all-electric Leaf car, key to the green ambitions of the Japanese auto giant.

At first glance Nissan's Oppama plant looks like any other. But a closer look reveals workers inserting lithium-ion batteries and electric motors in every sixth vehicle on the production line.

Oppama is home to the production of Nissan's all-electric Leaf, key to the green ambitions of the Japanese auto giant and its French partner Renault, which have sunk four billion euros (\$5.5 billion) into the project.

On a rolling <u>conveyor belt</u>, Leaf frames sit alongside conventional petrol models as workers alternate quickly between them, inserting battery



packs and electric motors shuttled to them in an automatic cart.

After 16 hours on the production line, the frames have been fitted with their own exhaust-free chassis and electric power units and are ready for rigorous testing.

"We can produce both types of models at the same time as the assembly process is not that different between the two engine types," says plant manager Seiji Honda on the sidelines of a press tour of the facility.

But <u>Nissan</u> hopes that the automobile -- whose name is an acronym for Leading Environmentally-friendly Affordable Family car -- will be a milestone in the industry's efforts to move on from its petrol-reliant past.

Billed as the first mass-produced electric vehicle available globally, 6,000 Leafs had been pre-ordered in Japan and 20,000 in the United States before the car's official launch last month.

The Leaf is selling for 2.98 million yen (36,350 dollars) in Japan and about 25,280 dollars in the United States, once government tax breaks designed to promote green cars are taken into account.

The car is also on sale in Portugal, with deliveries scheduled to begin in select European markets in the coming months.

It can be charged in eight hours at home on a standard plug, or in 30 minutes at a dedicated quick-charging station, for a range of roughly 200 kilometres (125 miles), according to Nissan.





Nissan Motor's all electric vehicle, the Leaf, is seen during an event in Yokohama in Japan. Nissan hopes that the automobile -- whose name is an acronym for Leading Environmentally-friendly Affordable Family car -- will be a milestone in the industry's efforts to move on from its petrol-reliant past.

The Leaf emits none of the tailpipe pollutants that have covered city skies in smog and is touted as a step forward from petrol-electric hybrids produced by the likes of Toyota, which makes the best-selling Prius.

However, the pace of production for Nissan's environmental flagship has been slow.

Japanese media reported that only 60 Leafs had been delivered by Nissan in Japan as of January 14, far short of the 6,000 orders it has promised to fulfil by the end of March.

Nissan has denied any delay and says it is simply taking a cautious approach to ensure quality control and will eventually ramp up production to meet its delivery deadline.



"We are working hard to eventually produce 50,000 units per year," said Nissan vice president Toshiharu Sakai.

The plant has already made a total of about 3,000 Leaf cars since starting production in late October, plant manager Honda said.

"We have trained our assembly line employees on how to put the Leaf together and have just hired a score of extra workers on the site" where approximately 2,100 people are employed, says Honda.

Oppama will be solely responsible for global Leaf production until a new plant in Smyrna, in the US state of Tennessee, opens in 2012 with a maximum capacity estimated at 150,000 units per year.

The automaker also aims to start production at Sunderland, northeast England, from 2013 with a capacity for 50,000 vehicles annually.



A prototype of Nissan Motors' second generation electronic vehicle is seen during a press preview in Yokosuka. Nissan has denied any delay to its muchhyped Leaf electric vehicle and says it is simply taking a cautious approach to ensure quality control.

Battery modules and other precision parts specific to the Leaf are



assembled in automated factories nearby "in order to reduce logistics costs", said Sakai.

By relying on cheaper robots to produce parts such as the Leaf battery, Nissan says it is mitigating the impact of a strong yen, which has prompted companies to consider moving production overseas to remain competitive.

And against cheaper competition, Nissan's Leaf project faces various challenges according to analysts who say the vehicle's production cost means it is unlikely to give an initial boost to the automaker's earnings.

The company has nevertheless gambled that its electric car will take off globally and help drive a fledgling market.

Toyota aims to launch its own electric car by 2012 but has put its immediate focus on new hybrid models, to build on its success with the Prius.

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Citation: Nissan turns new Leaf with all-electric car (2011, January 27) retrieved 27 April 2024 from <u>https://phys.org/news/2011-01-nissan-leaf-all-electric-car.html</u>

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