By 2020, Toyota plans to sell 30,000 fuel-cell cars a year, reach 94 mpg with Prius

Benjamin Hulac, E&E reporter

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Toyota released a new corporate blueprint of environmental objectives yesterday in Japan, establishing lofty objectives to streamline production of its vehicles and at its plants and taper down its energy use by 2050.

By midcentury, Toyota Motor Corp. aims to zero out all carbon dioxide emissions from manufacturing plants, cut average CO2 emissions from new vehicles 90 percent -- from 2010 levels -- and sell 30,000 fuel-cell cars worldwide yearly, beginning around 2020. That increase would be about a tenfold jump in production and sales from present totals, said Toni Honowszet, a company spokeswoman.

"This is a very ambitious target," Honowszet said in an email, "settled on after many in-house estimates and calculations, and we believe we can achieve it."

As fuel-cell "products" multiply and infrastructure becomes more common globally and in the United States -- about 50 hydrogen fueling stations exist in the country, only 10 of which are public -- "it is our belief that [fuel-cell vehicles] will gradually increase in popularity," Honowszet said (ClimateWire, May 6).

The company said it also intends to "completely" eliminate all carbon dioxide emissions released during its vehicles' existence -- the "well-to-wheels" lifecycle -- which would include emissions from parts, materials and manufacturing.

In its "Environmental Action Plan," Toyota set goals to sell 1.5 million hybrids annually and reach 15 million hybrids in cumulative sales by 2020. (There are roughly 240 million light-duty combustion engine vehicles in the United States.)

Switch from hybrids to fuel cells

The Japanese automaker and creator of the Prius, the best-selling hybrid to date, which topped 8 million in cumulative sales this year, is betting heavily on strong demand for fuel-cell vehicles.

Toyota said it will start selling fuel-cell buses in "small numbers by early 2017, focusing on Tokyo," leading up to the Summer Olympics and Paralympic Games in the city in 2020.

Its first hydrogen-powered offering, the Mirai, went on sale in Japan earlier this year and will hit U.S. showrooms this month. The car price starts at about $57,000 without tax credits.

Company officials said Toyota has sold or delivered 350 Mirai models in Japan. More than 1,900 U.S. customers have said they're interested in the cars, Honowszet said, and the company is plugging the Mirai heavily.

Critics of fuel-cell cars, including Elon Musk, the outspoken CEO of Tesla Motors Inc., have pilloried the technology's cost and danger of handling the cells. But backers have said the hydrogen-powered cars are worthwhile because, in some ways, they resemble traditional cars: drivers can fill them up as quickly as they would a gas tank and the cars can go hundreds of miles between stops.
In an email yesterday, Honsowetz said the Mirai can travel 312 miles on a hydrogen tank, according to U.S. EPA estimates, and can double as a fall-back power source for drivers' homes.

Toyota, whose three-ringed emblem symbolizes the infinite connections between the customer, the company and the world, said it will launch hybrid models in all vehicle categories worldwide and is to achieve about 94 mpg fuel economy with its new Prius.

That car, the fourth-generation, is slated to be first sold next year (ClimateWire, Sept. 10).

Online ads from Toyota featuring Christopher Lloyd and Michael J. Fox, the film stars of "Back to the Future," in which the characters use a fuel-cell powered car to time travel, tease viewers with a bold statement: "THE FUTURE IS ABOUT TO BECOME REALITY." The company has called the Mirai a "turning point." The company will release a short film of the two next Tuesday, Oct. 21 -- the date the characters travel to in the second movie of the three-part film series.

Toyota will roll out Mirais in California first, followed by Northeastern auto markets, Honsowetz said, calling the United States a "primary market."