Toyota Achieves Heavy-Duty Hydrogen Truck Milestones

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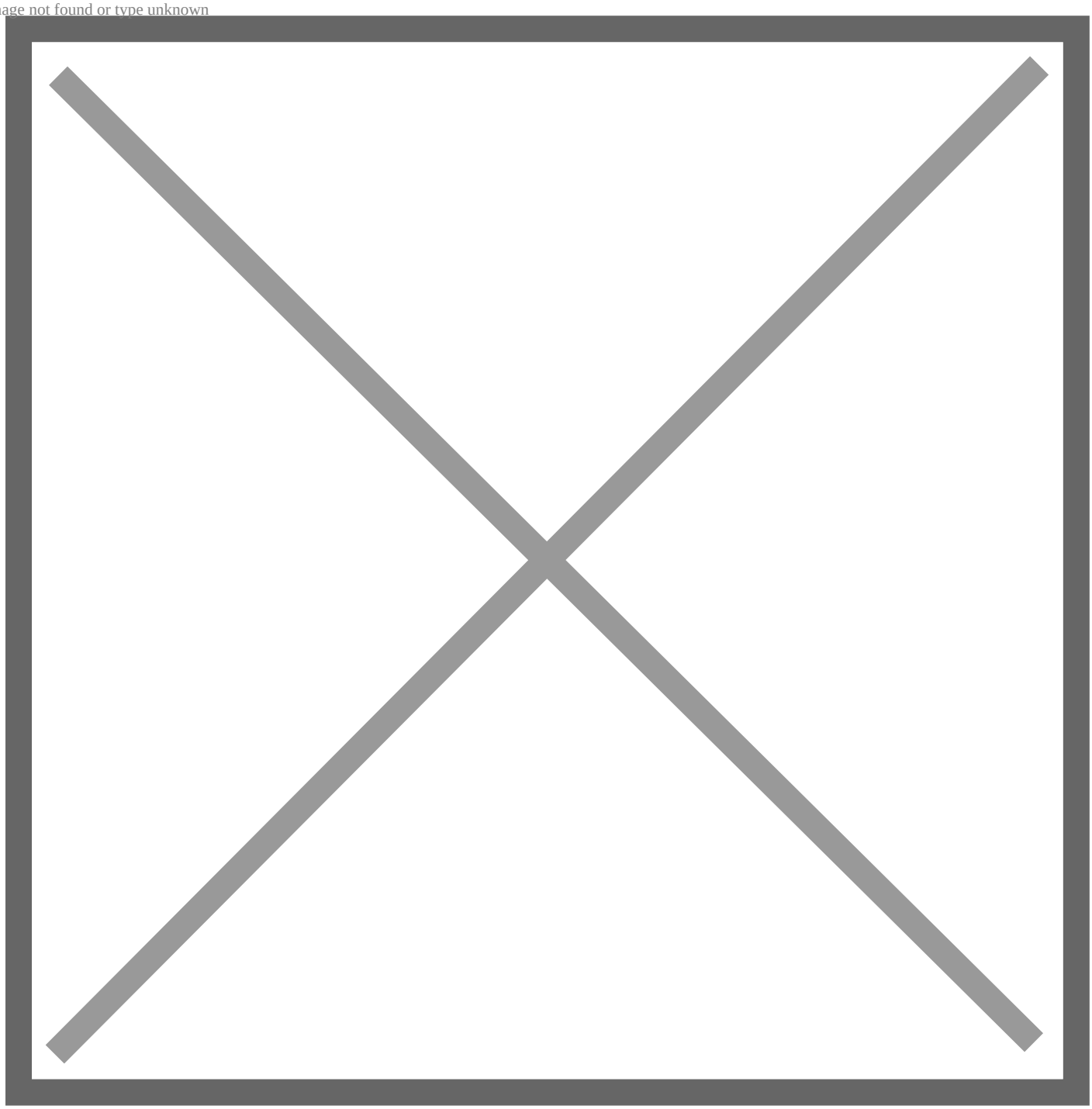

GARDENA, Calif. and PLANO, Texas (Oct. 20, 2026) – Toyota Motor North America's Hydrogen Headquarters (H2HQ) division is making steady progress in fueling improvements for heavy-duty fuel cell trucks as it works to bring these advancements to Toyota's commercial fleets in the U.S.

Toyota recently installed two mobile hydrogen fueling devices at North American Parts Center California (NAPCC), its largest parts distribution facility in the U.S. With the tanks and fuel ready, Toyota's commercial logistics fleets plan to use the mobile fuelers to support Toyota operations by fueling heavy-duty fuel cell trucks hauling freight from the Port of Los Angeles to Ontario, and throughout the region. A permanent station is planned to be built on location.

The station will initially fuel heavy-duty trucks commissioned through Hyroad Energy and will later integrate heavy-duty trucks with Toyota's own certified fuel cell powertrain.

Toyota and National Lab of the Rockies Complete Milestone Filling

In a public-private partnership, Toyota is collaborating with the U.S. Department of Energy's National Laboratory of the Rockies (NLR) in Golden, Colorado, to research several initiatives, including 70 MPa high-flow hydrogen fueling for heavy-duty trucks.

High-flow fueling allows trucks to accept hydrogen fuel at speeds up to 300g/s, or about five times faster than the rate of conventional light-duty fueling technology. It allows heavy-duty trucks to carry energy into the vehicle at an equivalent speed of a 20 MW fast charger. Refueling times are comparable to modern diesel-powered, heavy-duty trucks. Unlike a diesel powertrain, however, fuel cells emit only water.

Toyota and NLR engineers and researchers have performed multiple rounds of testing per SAE J2601-5 standards, successfully demonstrating that Toyota-powered heavy-duty trucks can be refueled in about eight minutes for a range of up to 450 miles.

Production Toyota-powered trucks are expected to hit the open road for commercial operations in 2027.

Building the Next Generation of Hydrogen Fueling

Over the next several months, Toyota aims to upgrade its private fueling infrastructure at its H2HQ to the same high-flow standard for testing heavy-duty vehicles. It also plans to install new equipment for light passenger fuel cell electric vehicles in order to evaluate station hardware and share insights intended to improve operations and reliability.

When the publicly available permanent station at NAPCC goes online, Toyota plans to provide conventional and high-flow hydrogen fueling for heavy-duty trucks, along with a separate area for fueling light-duty vehicles.

Toyota continues to develop and refine fuel cell technologies for heavy-duty vehicles, commercial applications, stationary power generation and light-duty passenger vehicles, including supporting past, current and future vehicle development.