

## Nissan X-Trail FCV

Stefan Geiger, Fuel Cell Today, January 2003

(based on material from Nissan Motor Co Ltd.)

Nissan presented its new X-TRAIL FCV, a high-pressure hydrogen-powered fuel cell vehicle (FCV) in Tokyo in December 2002. The company plans to road test the new car immediately.

This development is in line with the "Nissan Green Program 2005," a mid-term environmental action plan outlining the company's efforts in environmental protection, encompassing product and technology development, recycling strategy and many other initiatives.



Fig01: Nissan X-Trail FCV, Source Nissan Motor Co Ltd

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The X-TRAIL FCV is a high-efficiency, hybrid fuel cell vehicle fitted with a compact, high-performance lithium-ion battery pack that has already been commercialised on Nissan's HYPERMINI electric vehicle and other alternative fuel vehicles.

The power plant is a fuel cell developed by UTC Fuel Cells, a unit of United Technologies Corp. Nissan plans to make further improvements to this base vehicle and will start limited marketing of FCVs in 2003, two years ahead of its original program.

Nissan's FCV development began in 1999, when the company initiated driving tests of a methanol reformer-equipped FCV, the R'NESSA FCV. Nissan subsequently launched a five-year joint R&D project with Renault in 2001 in which the two partners plan to invest 85 billion yen (US\$ 715 million). Nissan is also taking part in the California Fuel Cell Partnership and has been conducting public road tests of the X-TERRA FCV since April 2001.

As a participant in the Japan Hydrogen & Fuel Cell Demonstration Project (JHFC Project) under the Ministry of Economy, Trade and Industry, Nissan plans to accelerate its efforts to resolve these issues, anticipating the popularisation of FCVs in the future.

#### **Technical Specifications:**

l / w / h	4,465 / 1,765 / 1,790 mm
Propulsion concept	UTC fuel cell 58 kW, PEM Fuel Cell, Lithium Ion Battery
Fuel	Gaseous hydrogen
Charging Pressure	35 MPa
Top speed / acceleration	125 km/h (~80 mph)