

## NEWS RELEASE

### Teijin to Trial the Use of Hydrogen Fuel Cells to Power Construction Sites

Tokyo, Japan, October 17, 2022 --- [Teijin Limited](#) announced today that, in collaboration with [Tokyu Construction Co., Ltd.](#), it plans to conduct a trial of the use of hydrogen fuel cells as a power source at construction sites. The trial, which will take place at the site of Tokyo's Shibuya station area redevelopment, is expected to commence in April 2023.

The lightweight and compact hydrogen fuel cells, for which Teijin has been granted a sales license in Japan, are developed by British fuel cell manufacturer [Intelligent Energy Limited](#). The *IE-LIFT™* cells are portable, each weighing around just 10 kg, and when in use they are quieter than existing gasoline and diesel generators, emitting only water vapor.

The hydrogen, used to power the fuel cells, will be stored in lightweight and corrosion-resistant *Ultressa®* composite pressure cylinders developed by the Teijin Group company [Teijin Engineering Limited](#). *Ultressa®* cylinders are made of carbon and glass fiber composite and used in a wide range of applications including the automotive, firefighting and medical fields.

During nighttime construction, electricity is required to power lighting, warning signs and other equipment. However, existing oil or gasoline power generators disturb local residents as they are noisy, emit odors and cause ground vibration, leading to calls for alternative types of power supply. Hydrogen is currently used primarily as a fuel source for fuel cell vehicles, however, the use of fuel cell vehicles is not yet widespread in Japan, and the refueling infrastructure to support them is still patchy.

Teijin is prioritizing the development of environmental value solutions with the aim of promoting sustainability and self-sustaining economies; as part of this approach, the company commenced the sale of hydrogen fuel cells in February 2021. Tokyu Construction is focusing its efforts on decarbonization, achieving zero waste, and on disaster prevention and mitigation in its long-term management plan "To zero, from zero." In order to reduce CO2 emissions at its construction sites, the company already makes partial use of on-site hydrogen fuel cells to generate power and has been conducting a number of studies of their practical application.

The purpose of this trial is to ascertain the reductions in the levels of noise and ground vibration that may result from the use of hydrogen fuel cells, and to evaluate their safety and reliability, aiming to resolve some of the issues hindering the more widespread use of hydrogen as a fuel.

Teijin, aiming to be a company that supports the society of the future, is confident that the use of hydrogen fuel cells will help to reduce CO2 emissions in Japan and thereby contribute to the nation's achievement of the United Nations' [Sustainable Development Goals](#) (SDGs).

### **About Intelligent Energy**

Intelligent Energy is focused on the development and manufacture of its Proton Exchange Membrane (PEM) fuel cell products for customers in the automotive, aerospace, generator, telecoms, materials handling and unmanned aerial vehicle (UAV) sectors. The company is headquartered and manufactures in Loughborough in the UK, with additional offices and representation in the US, Japan, China and South Korea.

[www.intelligent-energy.com](http://www.intelligent-energy.com)

### **About the Teijin Group**

Teijin (TSE: 3401) is a technology-driven global group offering advanced solutions in the fields of environmental value; safety, security and disaster mitigation; and demographic change and increased health consciousness. Originally established as Japan's first rayon manufacturer in 1918, Teijin has evolved into a unique enterprise encompassing three core business domains: high-performance materials including aramid, carbon fibers and composites, and also resin and plastic processing, films, polyester fibers and products converting; healthcare including pharmaceuticals and home healthcare equipment for bone/joint, respiratory and cardiovascular/metabolic diseases, nursing care and pre-symptomatic healthcare; and IT including B2B solutions for medical, corporate and public systems as well as packaged software and B2C online services for digital entertainment. Deeply committed to its stakeholders, as expressed in the brand statement "Human Chemistry, Human Solutions," Teijin aims to be a company that supports the society of the future. The group comprises some 170 companies and employs some 20,000 people across 20 countries worldwide. Teijin posted consolidated sales of JPY 926.1 billion (USD 7.2 billion) and total assets of JPY 1,207.6 billion (USD 9.4 billion) in the fiscal year that ended on March 31, 2022.

Please visit [www.teijin.com](http://www.teijin.com)

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