

<Press Release>



Akanetsu Installs Heat Source Facilities Utilizing Green Hydrogen, the First Such Initiative by a District Heating and Cooling Company in Central Tokyo

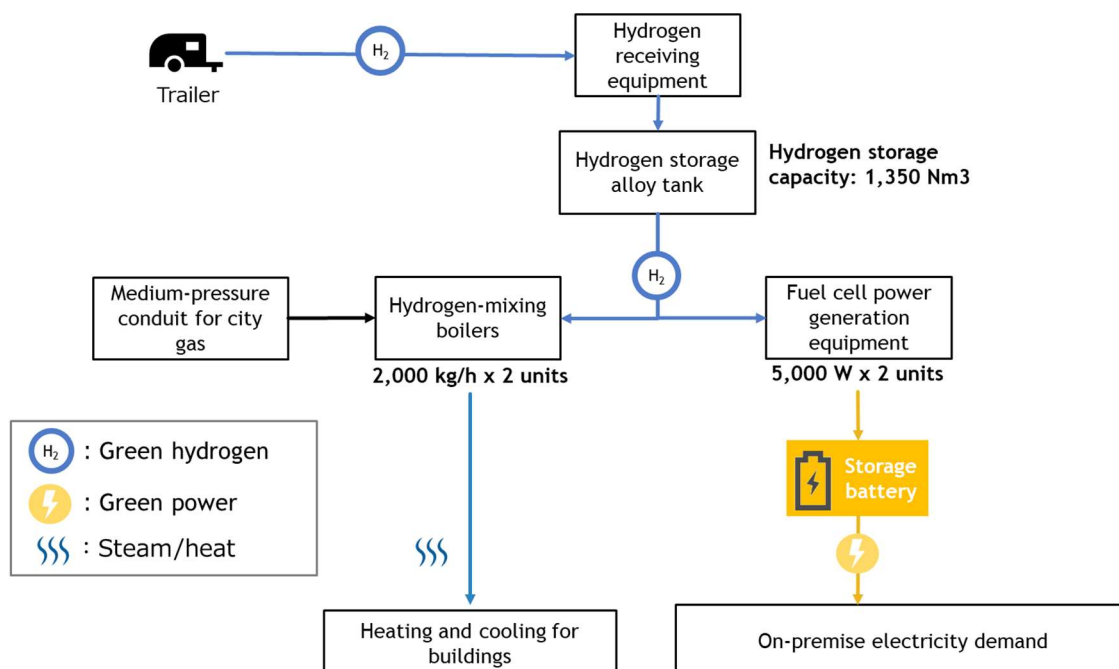
Safe and secure use of hydrogen to bring about a decarbonized society

TOKYO—27 March 2025—Akasaka Heating&Cooling Supply Co.,Ltd (Headquarters: Minato-ku, Tokyo; Representative Director and President: Morimasa Takagi; hereinafter "Akanetsu"), Ltd. which operates and manages a district heating and cooling system for the stable supply of energy produced in an underground plant to buildings in the Akasaka 5-chome district of Minato-ku, Tokyo, including the TBS Broadcasting Center, hereby announces that it has installed facilities utilizing green hydrogen. This new development marks the first such initiative for a district heating and cooling company in central Tokyo. By harnessing green hydrogen to generate electricity with fuel cells, and by switching some fuels from city gas, Akanetsu aims to help reduce CO₂ emissions in the process of producing cooling and heat. In this initiative, which is unique in Japan, installation of facilities is expected to be completed by October 2025, with green hydrogen transactions to begin in January 2026.

1. Facility Overview

Green hydrogen produced in Japan using renewable energy is transported by trailer to the Akasaka area of Tokyo, where it is stored in hydrogen storage alloy tanks manufactured by Shimizu Corporation and used as fuel for fuel cells and boilers.

2. Details of Installed Facilities

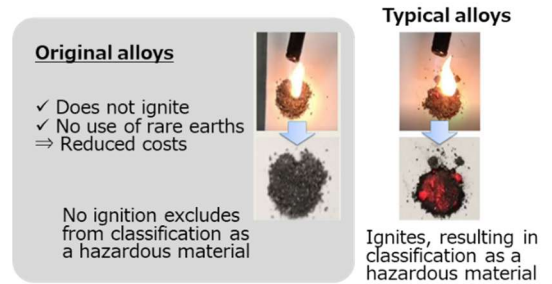


■ Hydrogen storage tanks

These are safe and compact hydrogen storage alloy tanks, capturing the benefits offered by hydrogen adsorbed on a special alloy to reduce hydrogen gas volume to 1/1000 of its original volume for storage. Unlike conventional liquefied hydrogen tanks and high-pressure containers, hydrogen adsorbed on hydrogen storage alloys is handled at a low pressure of less than 1 MPa, and the use of non-hazardous alloys that do not ignite when placed near fire ensures safety for installation inside buildings. In addition, these rare earth-free alloys contribute to cost reductions.

Specifications: Hydrogen storage alloy tank (manufacturer: Shimizu Corporation)

Capacity: 1,350 Nm³ (when combined with fuel cells, enables supply of 5,000W of electricity for about 2 weeks)



■ Fuel cells

These supply power to LED lights, some air conditioning, and emergency outlets on the plant premises. It provides "carbon zero" (carbon-free) electricity by generating electricity using green hydrogen and operates independently not only on a daily basis but also in the event of a power outage.

Specifications: Pure hydrogen fuel cell (manufactured by Panasonic Corporation)

Power generation capacity: 5,000W x 2 units



■ Hydrogen boilers

Hydrogen-mixing combustion boilers have been selected to achieve use of dual fuels between hydrogen and city gas. Of the heat source machinery in the plant, these will be installed for boilers that emit relatively large amounts of CO₂.

Specifications: Hydrogen-mixing once-through boiler
(manufactured by Hirakawa Corporation)

Converted steam volume: 2,000 kg/h x 2 units

Mixing ratio: 50% (by volume, maximum ratio) of hydrogen and city gas 13A



About District Heating and Cooling System

A district heating and cooling system is a system in which chilled water, hot water, steam, etc. are supplied from a heat supply facility (district heating and cooling plant) to a group of buildings in a certain area through conduits to provide cooling, heating, and hot water supply. In addition to energy savings, the introduction of district heating and cooling brings a variety of other benefits, such as environmental conservation effects resulting in reduced emissions of greenhouse gases and nitrogen oxides, as well as improved convenience and safety.

Akasaka Heating&Cooling Supply Co.,Ltd

Akasaka Heating&Cooling Supply Co.,Ltd ("Akanetsu") provides a stable supply of energy produced by two underground plants in the form of cold water, steam, and electricity to the TBS Broadcast Center and other buildings in the Akasaka 5-chome area of Minato-ku, Tokyo. Akanetsu has a business continuity plan (BCP) in place to ensure that its operations and daily life for local residents and commuters can continue uninterrupted

in the event of a major disaster. Akanetsu is committed to supporting local lifestyles and contributing to society by introducing safe and secure facilities utilizing hydrogen to realize the future of green hydrogen as a next-generation energy source and a decarbonized world.

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