

2016

Muroran Green Energy Town Concept

PROJECT ENTITY: City of Muroran

LOCATION: Muroran, Hokkaido

“ Background and progress

Muroran, a city located roughly 90 kilometers from Hokkaido's main city of Sapporo, flourished as a manufacturing center whose steel industry attracted advanced technology and human resources, logistics infrastructure, and research and development organizations. In recent years, the city has leveraged this industrial base to promote environmental industries and encourage the development of a resource-recycling and low-carbon city. After discussions

with companies, universities, and local groups, in 2015 the city government launched the Muroran Green Energy Town Concept, with the goals of fostering environmental industries, revitalizing the local economy, and realizing a low-carbon city. Public, private, and academic organizations are collaborating on the vision, which calls for doubling the amount of green energy (hydrogen, renewable & unutilized energy) from 2012 levels by 2020.

About the project

The city government is investing in the use of hydrogen energy, including deploying Hokkaido's first mobile hydrogen station and fuel cell vehicles in 2016, as well as installing household fuel cells at a municipal heated swimming pool, making it possible to provide electricity and heat even during power outages. Government and industry are collaborating to bring about a hydrogen society, with private businesses engaged in manufacturing and developing advanced components for hydrogen stations, and designating some residential areas where all houses have household fuel cells. Moreover, to promote the use of renewable energy, Muroran

has added wind and solar generation to public facilities, created a biogas generation facility at a wastewater treatment plant in cooperation with a private company, and is planning to start one of the largest biomass power generation plants in Japan in 2020. In addition, to promote energy conservation, the city has pursued the conversion of streetlights to LEDs, starting with the illumination of the Hakucho Bridge, which is a central element of the nighttime industrial scenery popular with tourists. The city also provides support to families to jointly adopt fuel cells, solar power generation, home energy management systems, and LED lighting.



Illumination of Hakucho Bridge uses wind-powered LED lights



Mobile hydrogen station and fuel cell vehicles



Municipal swimming pool equipped with household fuel cells



Residential area with fuel cell-equipped homes



Biomass power generation plant fueled by palm kernel shells is planned to start operation in 2020 (Photo courtesy of Muroran Biomass Power Generation G.K.)

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