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Urasoe Smart City (Development District around Tedako-Uranishi Station)

— Urasoe City, Okinawa Prefecture, Japan
2015-

Smart City development associated with the launch of new monorail station and commercialization of distributed energy system

Key Issue

The district is located in the Naha urban area, where around 60% of the Okinawa main island population is concentrated. The central part of Naha was troubled with chronic traffic congestion. While Okinawa Urban Monorail (also known as Yui Rail) commenced service in 2003, an accelerated modal shift was needed in order to curb the use of automobiles.

Furthermore, as Okinawa is a high risk disaster area frequently hit by typhoons, stable power supply has been an important issue concerning energy supply.

Project Approach

Integrated urban development with transport infrastructure (the monorail and expressway interchange) to reduce road traffic in the city center

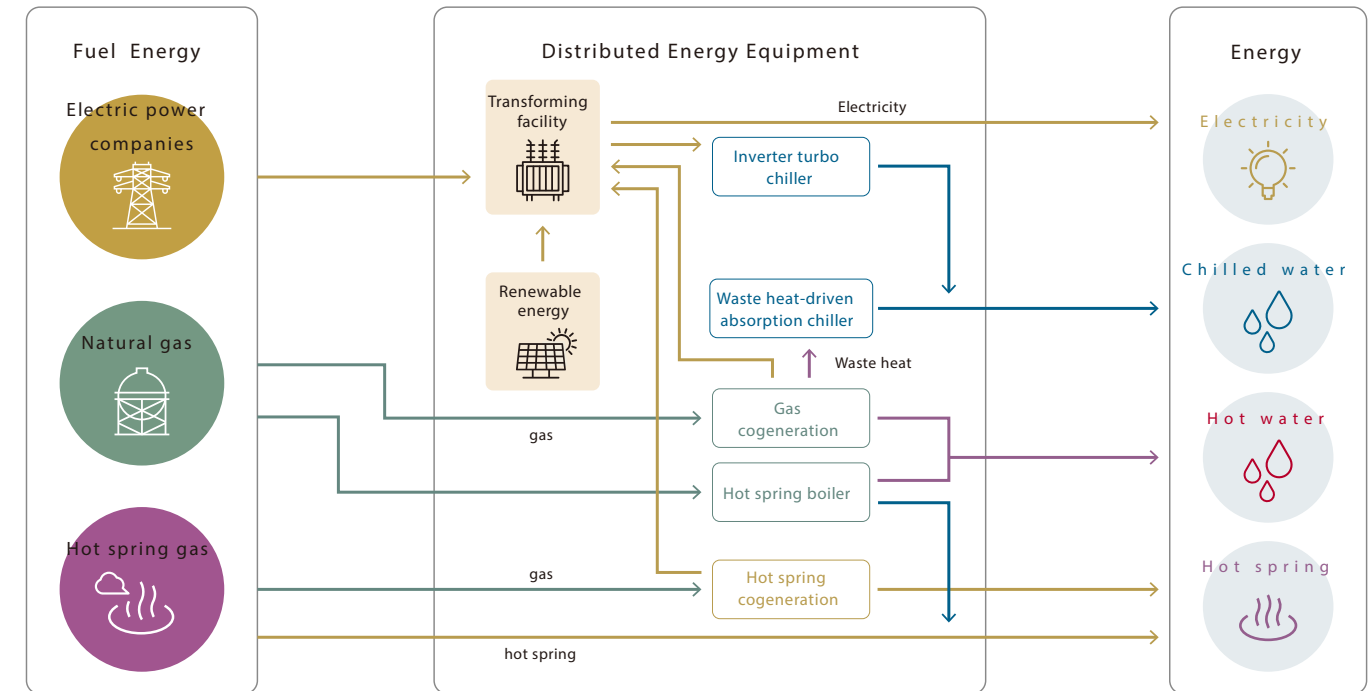
As part of the land development*7 a station square and a park-and-ride parking lot were built near a new station on the extended monorail line. By directly linking this area with an expressway interchange, transfer from automobiles to public transport was encouraged when travelling from the suburbs to the city center. In addition, facilities such as a commercial complex were built in area adjacent to the station in order to accelerate land development in the area.



The Okinawa Urban Monorail (Yui Rail) connecting Naha Airport Station and Shuri Station (tourist destination) with the urban center commenced service in 2003, with a total length of 12.9km and 15 stations. In September 2019, decision was made on the extension of 4.1km with 4 stations to the "Tedako-Uranishi Station", which will serve as a traffic node with the expressway. Source:JIJI

An energy center that makes integrated use of various sources of energy

Electricity and other energy supply to the district is conducted through an energy center built within the district by private business operators. By also utilizing natural gas and hot spring gas, this energy center provides efficient and stable supply of electricity, cooling energy, thermal energy and hot spring. In order to systematically implement new development of energy projects, efforts were made to shorten heat conduit and lower its underground installation expenses.



The energy center makes integrated use of electricity, natural gas and hot spring gas to achieve efficient and stable energy supply. Source: Urasoe Distributed Energy Co., Ltd.



Near a new station on the extended monorail line, a park-and-ride parking lot was built. It was connected to an interchange on the Okinawa Expressway.

To the Next Phase

Supply of cryogenic energy based on waste heat from the gas co-generation system is expected to level the electricity load in cooling. With its suitability to the local area, it is hoped that the new energy supply system introduced in the Urasoe smart city development will serve as a model in the development of electricity and heat supply projects for tropical and subtropical regions such as Southeast Asia.

Data

Area: 18.6 ha

Project implementing bodies: Urasoe Smart City Infrastructures Development Co., Ltd., Urasoe City Government, Land Readjustment Association of Tedako-Uranishi Station Area in Urasoe City, and Urasoe Distributed Energy Co., Ltd.

Main facilities introduced: Park-and-ride parking, a large-scale commercial facility, energy center, education facilities, fitness gym, etc.

