

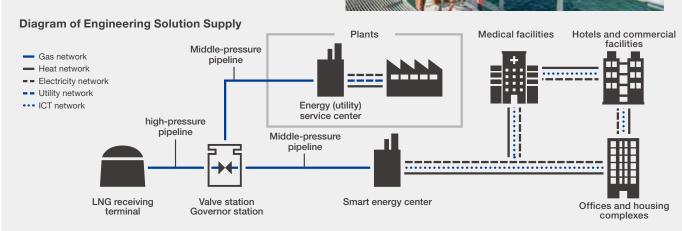
# Integrated previously-separate Group capabilities for engineering and energy solutions

In April 2015, Tokyo Gas Engineering Co., Ltd., engaged in construction, maintenance, and management of LNG terminals and other energy infrastructure, merged with Energy Advance Co., Ltd., which specialized in energy service, district heating and cooling service, and electric power-related engineering business, to establish Tokyo Gas Engineering Solutions Corporation (TGES).

By integrating capabilities in engineering and energy solutions, which used to be separately available within the group, TGES is able to provide one-stop solutions that better satisfy the needs of our customers in Japan and abroad in a wide range of domains, stemming from receipt of transported or conveyed resources and production of gas to gas supply, power generation, and energy solutions in the LNG value chain.









### Unique engineering solutions, leveraging accumulated know-how

Japan

### Established an energy supply system that responds to Business Continuity Plan (BCP)

Kamatahigashi District Heating and Cooling Center, operated by TGES since 1998, supplies thermal energy (steam, cool water) and electricity in the Ota-ku, central Tokyo. In July 2015, in addition to the Center's adoption of a gas cogeneration system (CGS) with a blackout start function, TGES integrated supply desinations with the center's electricity system to enable the whole district to use electricity generated by CGS in times of blackout. Such optimal management of electricity and heat by use of CGS contributes to enhance the entire community's disaster prevention capability.



Overseas

### **Energy service business**

TGES' overseas subsidiary will provide energy services to the Toray Group's plants in Malaysia and the U.S. The energy services comprise construction of an energy plant that has gas cogeneration systems, boilers, and equipment such as for air-conditioning and water treatment, and efficient supply of a wide range of services involving generated electricity, steam, water, and other resources. Based on its proven achievement, TGES' plant design and maintenance will enable to realize energy savings from its optimal systems and long-running cost reductions. In return, TGES will receive energy service fees, based on its longterm customer contract.



### **Engineering business**

TGES was awarded an order for assignment as a project management contractor (PMC) of the capacity expansion construction project of PPT LNG Map Ta Phut Receiving Terminals, Thailand. This is the first PMC order of its kind received by a Japanese company outside Japan. These first LNG terminals in Thailand were planned in anticipation of substantial growth in energy demand in keeping with the nation's economic development. The Tokyo Gas Group intends to further promote overseas business development, leveraging by its frontrunner experience and strengths in construction, operation, maintenance, and management of LNG terminals.

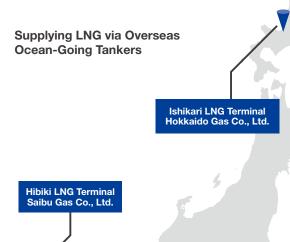


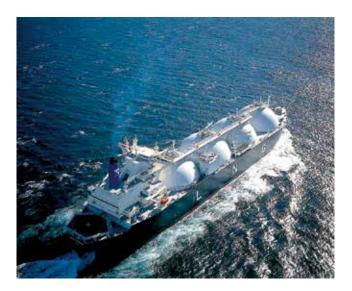


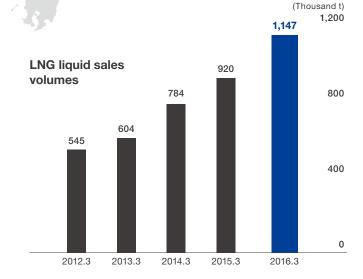
**Expand LNG supply to nationwide range and advance the LNG value chain through sales channel expansion** 

We have been working on expanding our own LNG sales channel so that it can be used by other gas operators nationwide, beyond the Kanto region, by use of lorries and access to supply from ocean-going LNG tankers. In October 2012, we started to supply LNG to the Ishikari LNG Terminal of Hokkaido Gas. This was our Group's first use of an ocean-going tanker to supply LNG we had purchased to a domestic gas operator outside the group. For 11 years starting from that, we plan to supply approximately 300,000-400,000 tons of LNG a year to Hokkaido Gas.

From October 2014, we also started to supply approximately 300,000 tons of LNG a year to Saibu Gas under a 16-year contract.



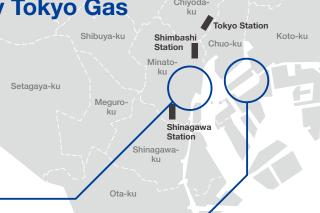






## Generating stable earnings by effective use of high-potential sites owned by Tokyo Gas

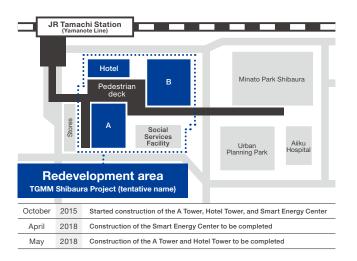
The Tokyo Gas Group holds high-potential, large-scale sites in locations as Tamachi and Toyosu in the Tokyo metropolitan area. We are developing those real estate holdings, while limiting the attendant risks, in order to improve asset value by their effective use. We are also interested in installing a smart energy network in those development projects as an initiative to improve asset value.



### Tamachi

#### Large-scale development with direct connections to **JR Tamachi Station**

Tamachi Station and its surrounding area are expected to play the role of a gateway to Tokyo, as it is close to the Linear Chuo Shinkansen Line route and has easy access to Haneda Airport which has a plan for further development. Office and hotel buildings and commercial facilities are under construction on this 2.8ha site, and will be directly connected to Tamachi Station.



### Toyosu

#### Complex town planning project in the intended locations of the Tokyo 2020 Oympics

The redevelopment area in Toyosu is a prime location, about 4km away from Tokyo Station. The Tokyo Bay area, including Toyosu, is getting increased attention as it will be a major location of the Tokyo 2020 Olympics and Paralympics events. The Tokyo Gas Group is involved in construction of a combination of residential, office, and commercial functions in this widespread development area of approximately 20ha.

