



The First Urban District Cooling and Power Distribution Business in Thailand -Execution of Utility Development Agreement for Supply to One Bangkok-

Tokyo Gas Engineering Solutions Corporation (“TGES”), Mitsui & Co., and Gulf Energy Development Public Company Limited ^{(*)1} have jointly established Bangkok Smart Energy Company Limited, and will partner with One DCS Services Co., Ltd. and One Power Services Co., Ltd. both of which are developed by the TCC group company, One Bangkok Co., Ltd. ^{(*)2}, to invest in a district cooling and power distribution business to supply One Bangkok development in Bangkok, Thailand, and to execute utility development agreement with One Bangkok Co., Ltd.

The first urban district cooling center and power distribution system will be located in Thailand’s largest private sector property development site of 16.7 hectares, adjacent to Lumpini Park at Bangkok’s city center, and undertake chilled water and electricity supply to the 16-building mixed-use district which comprises five premium-grade office towers, three luxury residential towers, five luxury and lifestyle hotels, differentiated retail precincts, and art & cultural and public spaces for 30 years.

This district cooling system will provide accurate demand forecast based on weather forecast for the next day and past demand analysis, materializing area-wide energy supply optimization by controlling the cutting-edge, high-efficiency chillers and thermal storage system. In line with One Bangkok’s sustainable development concept and its aim to be the first LEED Neighborhood Development Platinum ^{(*)3} certified development in Thailand, this system will run on recycled water such as rainwater and promote energy intensity reduction and so on.

Since establishment of Shinjuku district heating and cooling center in 1971, TGES has accumulated experiences in district heating and cooling business for about half a century. Currently TGES has 15 district heating and cooling centers and is Japan’s largest operator. Following the business for One Bangkok, TGES will aggressively promote district cooling business in Southeast Asian countries where further urban development are expected and continue to contribute to sustainable urban development which provides people with comfortable lifestyles.

(*1) Gulf Energy Development Public Company Limited is the leading private sector energy producer in Thailand with a portfolio of 27 projects supplying more than 11 GW of electricity.

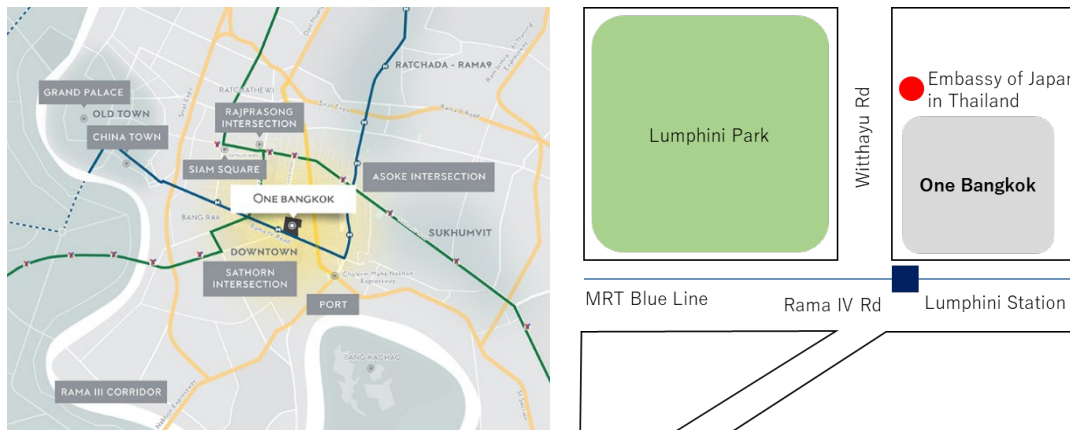
(*2) TCC group is the conglomerate with interest in multiple industries such as food and beverage, consumer products and real estate. One Bangkok is being developed by One Bangkok Co., Ltd. jointly established by TCC Assets (Thailand) Co., Ltd. and Frasers Property Holdings (Thailand) Co., Ltd., both of which are real estate companies of TCC group.

(*3) LEED is an international green building and community certification system developed by U.S. Green Building Council. One Bangkok aims to be the first LEED-Neighborhood Development Platinum development in Thailand. As a part of its integrated development, the district cooling system will incorporate sustainable principles through a centralized water and energy management system.

Overview of One Bangkok

Project Name	One Bangkok
Project Leader	One Bangkok Co. Ltd. (Joint venture of TCC Assets (Thailand) Co., Ltd. and Frasers Property Holdings (Thailand) Co., Ltd.)
Land Area	16.7ha (Gross floor area: 1,830,000 m ²)
Location	At the corner of Witthayu Road and Rama IV Road
Project Objective	Thailand's largest fully-integrated district comprising five Grade A office towers; five luxury and lifestyle hotels; three luxury residential towers; differentiated retail precincts; and public realm
Investment value	120 billion Thai Baht (408 billion Yen)
Schedule	March 2018 Commencement of construction 2023 Opening

Location of One Bangkok



Perspective Drawing of One Bangkok



Picture from Signing Ceremony



Outline of TGES

Company Name	Tokyo Gas Engineering Solutions Corporation
Head Office	1-2-3 Kaigan, Minato-ku, Tokyo, Japan
Representative	Takashi HIGO, Representative Director, President & Chief Executive Officer
Business	<ul style="list-style-type: none"> · On-site energy services · Regional energy services (district heating and cooling systems) · Construction and maintenance services of cogeneration systems · Planning, design, construction, operation, and maintenance of energy-related facilities. <p>Sales for related facilities including LNG Receiving Terminals, high and medium pressure pipelines, gas supply facilities, power generating facilities, energy utilizing facilities, etc.</p> <ul style="list-style-type: none"> · Collection and regeneration of various contaminated soil and water · Geographic Information System and related administrative work including software development and sales, construction /updating data, equipment sales, etc. · Various surveys/research and consulting
Capital	10 billion yen (100% funded by Tokyo Gas Co. Ltd.)
Establishment	April 1, 2015

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