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CLP Power Proposes Increase in Gas-Fired Generation to Support Government’s Environmental Policy

CLP Power Hong Kong Limited (CLP Power) has proposed building an additional gas-fired generation unit with an advanced design at Black Point Power Station in support of the government’s policy of using more natural gas for generation and to ensure the continuing reliability of its power supply. An Environmental Impact Assessment report on the proposal has been submitted to the Environmental Protection Department and is available for public inspection from today.

The proposed additional gas-fired generation unit would support the government’s environmental target of increasing the percentage of local gas generation by 2020. It would also help meet the increased future electricity demand generated by Hong Kong’s social development. The new unit would feature an advanced design with a Combined Cycle Gas Turbine (CCGT) configuration which would give it an efficiency of around 60%, higher than that of the existing gas-fired units. Construction work is expected to begin in the second half of 2016. The unit would start operations at the end of 2019, providing a highly reliable and environmentally friendly power supply to CLP Power’s customers.

The CCGT consists of a gas turbine and a steam turbine. The process begins with natural gas being burned in the gas turbine to generate electricity. The heat given off from the gas turbine during the process is used to heat up water in a boiler. Steam is then produced to drive the steam turbine for power generation. The design allows for greater electricity output without the use of additional fuel, leading to a reduction in emissions. In addition, the installation of advanced Selective Catalytic Reduction system can further reduce the nitrogen oxides (NOx) emissions.

CLP Power submitted a Project Profile for the additional unit in April 2015 and has since engaged expert consultants to conduct a detailed environmental impact assessment based on guidelines set down in a study brief issued by the government. The assessment covered more than 10 aspects including its impact on air quality, water quality and ecology.

The conclusion was that the additional unit would allow for a reduction of up to 19% in nitrogen oxides (NOx) emissions and a reduction of up to about 10% in emissions of sulphur dioxide (SO₂).
and respirable suspended particulates (RSP), compared to the emission target of 2020. These reductions would be possible because the new unit would be operated as a priority plant once commissioned and would displace the sent-out from the existing coal-fired and gas-fired generation plants. In addition, the environmental impact of the project during construction and operation would be insignificant and short-term, the assessment concluded. To minimise the impact, regular site inspections and audits would be conducted, including monitoring of air pollutants and marine water quality.

During the assessment, CLP Power maintained close communication with its stakeholders including academics, chambers of commerce, environmental groups, district councillors and local residents to explain the process and collect their feedback and comments. CLP Power has carefully considered the issues such as the impact on the environment, the benefits in improving the air quality and the effects on surrounding areas during construction. Mitigation measures have been proposed where necessary.

“CLP Power shares government’s vision of making Hong Kong a smarter, greener city and we believe the building of this new unit will be a milestone in our efforts,” a CLP Power spokesperson said. “To support government’s policy of using more gas-fired generation, CLP Power will seek out more natural gas sources at competitive prices to guarantee our future fuel supply reliability.”

Attachment: Facts about the Proposed Additional Gas-Fired Generation Capacity

About CLP Power Hong Kong Limited
CLP Power Hong Kong Limited ("CLP Power") is the Hong Kong utility subsidiary wholly owned by CLP Holdings Limited, a company listed on the Hong Kong Stock Exchange and one of the largest investor-owned power businesses in Asia. CLP Power operates a vertically integrated electricity supply business in Hong Kong, and provides a highly reliable supply of electricity and excellent customer service to 5.9 million people in its supply area.

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