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中華電力有限公司
CLP Power Hong Kong Limited

CLP Power Upgrades Defences against Storm Surges and Super Typhoons

CLP Power Hong Kong Limited (CLP Power) today (8 July) revealed details of a raft of new measures to upgrade its emergency defences and ensure Hong Kong's world-class energy supply is safeguarded against storm surges, super typhoons and other extreme seasonal weather conditions.

A series of major upgrades, including improvements to flood-prone transmission substations and a new flood calculator that monitors the risk of storm damage minute by minute, have been implemented to protect Hong Kong in the face of the growing threats posed by climate change.

The measures leave CLP Power better prepared than ever to cope with storm surges, super typhoons thunderstorms and rainstorms without the extreme natural events having a significant impact on the city's power supply.

CLP Power Chief Operating Officer Chow Tang Fai today outlined the new measures in detail and said he was confident they would help CLP maintain its current world-class supply reliability rate of 99.999%, with each customer experiencing unplanned power interruptions averaging only 2.3 minutes a year.

The measures and contingency mechanism to cope with adverse weather reflect CLP Power's commitment to provide power expertise and outstanding customer service, he said.

Mr Chow added that CLP Power has maintained close contact with its overseas counterparts and exchanged experiences in the areas of technology, management and operations over the years. CLP Power arranged visits to power companies in Australia and Taiwan to study their mitigation measures against super typhoons and flooding risks. The adoption of a flood calculator originated from Con Edison, a power company in New York which has considerable experience in combating storm surges.

Mr Chow said: "Providing a reliable and stable power supply is our most important commitment to our customers. Although power interruptions are unavoidable during extreme natural events, we hope that these measures can reduce and alleviate the impact, so that the effect on our power systems and the nuisance to the public is kept to a minimum."

Mr Chow pointed out that Hong Kong was particularly vulnerable to storm surges caused by tropical cyclones. A storm surge that coincides with a high tide can lead to water levels much higher than normal sea levels and cause severe flooding in coastal areas, he explained.

To counter the potential impact of a storm surge on Hong Kong's power supply, CLP Power has since last year begun to upgrade mitigation measures at flood-prone transmission substations (132kV or above) and distribution substations (11kV), taking steps such as installing flood gates, sealing the cable inlets and equipping the substations with sump pumps and flood alarm systems.

Retrofitting of 11 flood-prone transmission substations has already been completed, while further upgrades will be implemented in approximately 500 distribution substations in accordance with their degrees of flooding risk. In addition to the substations, CLP Power has put in place hi-tech equipment to reduce the risk of flooding at power plants.

CLP Power has also introduced a flood calculator, which evaluates the flooding risk at substations during typhoons minute by minute based on real-time data released by the Hong Kong Observatory. The system allows for meticulous monitoring and timely coordination of the CLP Power system control centre to avoid any damage to power supply equipment.

Aside from flooding, strong winds and heavy rain during typhoons can result in fallen trees, which pose a threat to overhead lines and can affect the transmission network. To avoid these dangers, a CLP Power vegetation management team is stepping up inspections in the run-up to the typhoon season, carrying out pruning works on trees which might affect overhead lines.

In a further measure to lessen the risk of damage to pylons from strong winds, an Emergency Restoration System has been in action since 2013 to improve the emergency response capability of the CLP transmission network.

About CLP Power Hong Kong Limited

CLP Power Hong Kong Limited (CLP Power) is a 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 5.8 million people.

Photo Caption:



CLP Power Chief Operation Officer Chow Tang Fai demonstrates the installation of a flood gate at the entrance of a transmission substation.

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