

LCQ10: Power supply incidents

Following is a question by the Hon Starry Lee and a written reply by the Secretary for Environment and Ecology, Mr Tse Chin-wan, in the Legislative Council today (July 3):

Question:

CLP Power Hong Kong Limited (CLP) experienced a cable fault in the Wong Tai Sin district on the evening of the 12th of last month, which reportedly caused extensive power outage in Lung Kwong House of Lower Wong Tai Sin Estate, Lions Rise, Mei Tak House of Mei Tung Estate and Temple Mall South, etc., and CLP experienced seven voltage dip and power interruption incidents in the first half of this year. In this connection, will the Government inform this Council:

(1) given that in the reply to a question raised by a Member of this Council on the Estimates of Expenditure 2024-2025, the Government has indicated that CLP experienced 10, 19 and 16 incidents of voltage dip and power interruption in 2021, 2022 and 2023 respectively, whether it knows the location, the number of customers affected and the duration of the power interruption of each incident;

(2) whether it knows, in the incident on the 12th of last month, if the affected area was powered by the ring power distribution system; if it was, why CLP failed to maintain the power supply by other cables after the incident occurred; if not, whether CLP will consider introducing the ring power distribution system into the area, so as to enhance the reliability of the power supply;

(3) whether it knows if CLP will offer compensation to its customers affected by the incident on the 12th of last month by modelling on its practice of giving out Appreciation Vouchers to the affected customers following the major power outage in Yuen Long, Tin Shui Wai and Tuen Mun in June 2022; if CLP will, of the details; if not, the reasons for that;

(4) given that the Environment and Ecology Bureau has, in the light of the incident on the 12th of last month, requested CLP to offer funds for the engagement of an independent consultant by the Electrical and Mechanical Services Department to re-examine past power interruption incidents, conduct a comprehensive review of the power supply system, and make holistic recommendations to minimize the occurrence of power interruptions, of the details of the progress of the various tasks;

(5) as there are views that the demand for power consumption surges as Hong Kong is heading into the scorching summer, whether it knows if CLP will conduct risk assessments and expedite the inspection of high-risk areas (including the cables, substations and other power supply installations in old districts and areas powered by the radial power distribution system), so

as to ensure that there are no potential safety hazards during the peak power consumption periods, and modernize obsolete facilities when necessary; if CLP will, of the details; if not, the reasons for that; and

(6) whether it will review the new penalty scheme introduced under the 2023 interim review on the Scheme of Control Agreements, so as to include incidents of a scale similar to that on the 12th of last month in the scope of the penalty system; if so, of the details; if not, the reasons for that?

Reply:

President,

A stable and reliable power supply is very important to the daily lives of the public and every level of economic activities in Hong Kong. The Government is very concerned about a number of power outage and voltage dip incidents of CLP Power Hong Kong Limited (CLP) occurring one after another in the recent half year, leading to public concerns about whether CLP's service quality is on the decline. The Environment and Ecology Bureau (EEB) earlier indicated that it was necessary for CLP to examine its company culture and management system for the entire power supply system to identify the root causes of the problem, make fundamental improvements to reduce the chances of similar incidents in the future, and maintain the stable and reliable power supply that Hong Kong has always been proud of.

Regarding the various parts of the question raised by Hon Starry Lee Wai-king, our reply is as follows:

(1) According to the records of incidents reported under the prevailing reporting mechanism, voltage dip and power outage incidents of CLP's power supply system from 2021 to 2023 are detailed in Annex.

(2) and (4) As regards the power outage incident occurred in Wong Tai Sin area on June 12, 2024, CLP preliminarily suggested that there were two 11kV ring circuit underground cables supplying power in the area and the incident was related to the fault of the two underground cables one after the other that day. Upon receipt of CLP's notification, the Electrical and Mechanical Services Department (EMSD) immediately deployed staff to the site to investigate and follow up on the incident, as well as requested CLP to identify the cause of the incident as soon as possible and to submit a detailed report within four weeks (i.e. on or before July 10, 2024) to explain the cause of the incident and the necessary remedial measures to be taken, in accordance with the Electricity Ordinance (Cap. 406). Upon receipt of the incident report, the EMSD will review the investigation findings and improvement measures as well as closely monitor CLP's implementation of various measures to prevent recurrence of similar incidents. If needed, the EMSD will request CLP to make clarifications or provide further information and additional improvement measures.

On the day following the incident, the Secretary for Environment and Ecology (SEE) met with the Managing Director of CLP and requested CLP to

allocate resources for an independent consultant. The EMSD will be responsible for engaging the independent consultant, who will report to Director of Electrical and Mechanical Services (DEMS) after:

- (i) Conducting a re-examination of all voltage dips and power supply interruption incidents that occurred in the past three years, listing the causes, improvement measures, implementation status of the measures, and their effectiveness;
- (ii) Conducting a comprehensive review of the safety design of the power supply system, its capability to withstand the impact of external factors, the arrangements for maintenance and preventive maintenance, the procurement and inspection system for materials, the supervision and quality assurance standards, as well as personnel qualification, training and retraining requirements; and
- (iii) Providing comprehensive recommendations on how to enhance the stability and reliability of the power supply, and reduce the chances of similar incidents in the future.

In response to the above request, the EMSD and CLP have formed the "Task Force on Review of CLP's Power Supply System" (Task Force) and has commenced relevant work. The EMSD is currently following up on the recruitment of an independent consultant, with a view to completing the review and submitting a report within 12 months. The EMSD is also preparing for the establishment of the "Steering Group on Review of CLP's Power Supply System" (Steering Group). DEMS will invite local experts and scholars to join the Steering Group to supervise the work of the independent consultant and advise on the report. The first meeting of the Steering Group is tentatively scheduled in August 2024.

Subsequently, a voltage dip incident occurred in CLP's 400kV overhead line power supply system connecting Yuen Long and Shenzhen in the early morning on June 23, 2024. While there were no extreme weather conditions that night, CLP suspected that the incident was related to the inclement weather as Thunderstorm Warning was issued by the Hong Kong Observatory. The EEB is extremely concerned about the electrical incidents occurred under such circumstances and was of the view that CLP should not wait until the completion of the review for its result, but should enhance the capability of the power supply system to withstand inclement weather as soon as possible. The EMSD also shortly followed up with CLP on how to enhance the lightning protection capability of power supply system, with a view to reducing the risk brought about by the high frequency of Thunderstorm Warnings during these few months. In addition, the EMSD has established a task force to solemnly follow up on the improvement measures proposed by CLP, including various short, medium and long term measures, with an aim to mitigating the impact of extreme weather on the power supply system, such as increasing manpower and adopting innovative technology to conduct inspections and maintenance of key facilities, and installing more lightning protection systems on some outdoor power facilities, to minimise the impacts of lightning, etc. Apart from ensuring CLP's implementation of various measures, the task force will also examine whether CLP's timetable for implementation of measures can be accelerated, and if there are any additional measures which can assist to enhance the capability of power supply system to

withstand the impact of inclement weather.

(3) During the meeting with the Managing Director of CLP on June 13, SEE suggested that CLP offers "Appreciation Vouchers" to the affected customers, making reference to the power outage incident after the Cable Bridge Fire Incident in Yuen Long in June 2022. We believe that, CLP, as a socially responsible company, would carefully consider the suggestion.

(5) CLP stated that with a view to ensuring a reliable power supply during peak demand periods, particularly during scorching summer days with sharply increased demand, CLP had been continuously monitoring the demand of the power supply system and promptly identifying areas with higher growth of power demand to formulate necessary mitigation measures (including the replacement of aging equipment when necessary). When any potential overload conditions are forecasted, CLP will prioritise resources to conduct reinforcement work. As regards the enhancement of inspections for high-risk areas, CLP has already strengthened inspections of critical power supply facilities to reduce the risk of impacts on the power supply system before entering the scorching summer.

(6) Upon the completion of the Interim Review of the Scheme of Control Agreements (SCAs) in 2023, a new penalty scheme for large-scale electricity supply interruptions, such as CLP's Cable Bridge Fire Incident happened in June 2022, was established under the SCAs. The permitted return will be adjusted, according to the level of "Customer Interruption Duration" of individual serious incidents that year.

In view of the recent frequent voltage dip incidents of CLP and taking into account views from various sectors of the community considering that CLP should bear responsibility for voltage dip incidents, EEB previously proposed to CLP that a penalty scheme should be established for significant voltage dip incidents and included in the existing SCA with CLP. According to the SCAs, all proposed modifications will not take effect unless an agreement is made by the Government and CLP on the modifications. CLP is still considering the proposal suggested by the Government.