

# LCQ10: Penalty scheme for power supply incidents

Following is a question by the Hon JoePHY Chan and a written reply by the Secretary for Environment and Ecology, Mr Tse Chin-wan, in the Legislative Council today (January 31):

Question:

CLP Power Hong Kong Limited (CLP) experienced two power supply incidents this month. On the 1st of this month, a fault occurred in the equipment of CLP's Nga Ying Chau Street Substation in Tsing Yi. CLP reported that no electricity shortage was found during the period but short voltage dips were resulted from the incident. It is learnt that some members of the public were materially affected, such as being trapped in lifts and unable to use the lifts normally. In addition, on the 7th of this month, a fault occurred in an underground cable at On Mei House, Cheung On Estate in Tsing Yi, leading to partial power supply interruption at On Mei House, affecting more than 300 CLP customers. In this connection, will the Government inform this Council:

(1) given that the new penalty scheme introduced under the 2023 interim review on the Scheme of Control Agreements is for large-scale electricity supply interruptions, and that no electricity shortage was found in the aforesaid incident involving the Nga Ying Chau Street Substation, and therefore the penalty scheme was not triggered, whether the Government will consider including this type of incident in the scope of the penalty scheme; if not, whether the Government will consider enhancing the penalty scheme (e.g. by including in the relevant scope instances of unstable electricity supply which have a material impact on members of the public) in order to enable the two power companies to bear their due social responsibilities and improve their service standards;

(2) as it is reported that the index of Customer Interruption Duration (CID) (i.e. the sum of the product of "number of customers being interrupted" and "duration of power interruption" for each group of affected customers for each large-scale electricity supply interruption incident) of the aforesaid incident involving the underground cable at On Mei House was approximately 30 000-odd minutes, and hence the penalty scheme was not triggered, there are views that the threshold set for the index (i.e. 15 000 000 minutes) under the penalty scheme is too high, whether the Government has reviewed if the penalty scheme is ineffective in preventing the occurrence of power supply incidents of the two power companies and is virtually non-existent;

(3) who defined "each group of affected customers" in the calculation of CID and of the criteria adopted; whether the Government grasps such definition and criteria; and

(4) given that the Electrical and Mechanical Services Department has

requested CLP to expeditiously identify the causes of the two aforesaid incidents and submit detailed reports on such incidents respectively, whether the Government will conduct a review on the relevant reports to ensure that the data provided by CLP is consistent with the actual situation?

Reply:

President,

The Government is very concerned about CLP Power Hong Kong Limited (CLP)'s two power incidents, which were not caused by external factors such as adverse weather, in January 2024. The incidents affected the daily life and aroused concern of the public. Subsequent to the two incidents, the Electrical and Mechanical Services Department (EMSD) immediately sent staff to the site to conduct investigation, followed up with the CLP on the development of the incidents, and monitored the progress of the repair work.

Regarding the incident of Nga Ying Chau Street Substation in Tsing Yi on January 1 and the power supply incident in On Mei House, Cheung On Estate, Tsing Yi, on January 7, the EMSD earlier requested the CLP to identify the causes of the incidents and submit investigation reports on the incidents within four weeks and two weeks respectively. Thereafter, the EMSD had a meeting with the CLP on January 8 and requested the CLP to immediately strengthen inspections on the power supply system in Tsing Yi district, targeting to complete all inspections within January 2024, as well as review the maintenance arrangements of the territory-wide transmission and distribution system.

The EMSD received on January 20 the investigation report submitted by the CLP on the power supply incident of On Mei House, Cheung On Estate, Tsing Yi, on January 7, and received on January 27 the investigation report on the incident of Nga Ying Chau Street Substation in Tsing Yi on January 1. The EMSD is now examining the reports, including assessing whether the identified causes are well-founded and whether the rectification measures are adequate to prevent recurrence of similar incidents. The EMSD will request the CLP to make clarifications or provide further information if needed.

Up till now, the CLP has already completed inspections on the power supply system in Tsing Yi district and confirmed that the concerned facilities are in normal operation. The EMSD has reviewed the inspection work and found no abnormality. The CLP will also continue to review the maintenance arrangements of the territory-wide transmission and distribution system. In view of the recent electrical incidents, the EMSD will step up inspections of the facilities and operations of the two power companies to monitor their technical and electrical safety performance.

Regarding the various parts of the question raised by the Hon Joephy Chan, our consolidated reply is as follows:

(1), (2), (3) and (4) The objectives of the Government's energy policies are to ensure energy needs of the community are met safely, reliably and

efficiently at reasonable prices, to minimise the environmental impact of energy production and use, and to promote the efficient use and conservation of energy. The Scheme of Control Agreements (SCAs) provide a framework for the Government to monitor the corporate affairs of the power companies. By signing the SCAs, the power companies pledge to provide sufficient facilities to meet the electricity demand, and are responsible for the provision, operation and proper maintenance of their facilities. In addition, the power companies must strictly abide by their responsibilities, including maintaining high efficiency and quality in terms of reliability of power supply.

In accordance with the SCAs, the Government conducts annual Auditing Review with the power companies with regards to technical, environmental and financial performance, including customer performance, of the power companies. Under the mechanism, an incentive and penalty mechanism has been established. The performance indicators relating to the stability of power supply are: (1) "Supply Reliability", which is the measure of the "Average Service Availability Index (ASAI)" achieved by the power companies in that year; and (2) "Supply Restoration", which is the measure of the "Average Grid Supply Restoration Time (Average GSRT)" achieved by the power companies in that year.

The Government completed the 2023 Interim Review of the SCAs with the two power companies at the end of 2023. After rounds of negotiations between the Government and the two power companies, with a view to enhancing the existing incentive and penalty mechanism in the SCAs, the two power companies eventually agreed with the introduction of a new penalty scheme for large-scale electricity supply interruptions. The new penalty scheme (Note 1), which targets serious large-scale electricity supply interruption incidents such as the CLP Cable Bridge Fire Incident on June 21, 2022, etc, is based on a new performance indicator of "Customer Interruption Duration" (CID) with details below:

| Threshold                                      |   | Penalty Adjustment on Permitted Return |
|--|---|--|
| CLP  | The Hongkong Electric Company                 |  |
| 30 000 000 minutes > CID >= 15 000 000 minutes | 10 000 000 minutes > CID >= 5 000 000 minutes | -0.015%                                |
| CID >= 30 000 000 minutes                      | CID >= 10 000 000 minutes                     | -0.03%                                 |

CID is the sum of the product of "number of customers being interrupted" and "duration of power interruption" expressed in minutes for each group of affected customers for each large-scale electricity supply interruption incident (Note 2). "Affected customers" refers to the power companies' customers whose electricity supply is interrupted by power interruptions.

Introducing the new penalty scheme for large-scale electricity supply interruption incidents complements the existing incentive/penalty mechanisms with "ASAI" and "Average GSRT", thereby enhancing the overall incentive and penalty mechanism of the SCAs.

The incentive and penalty mechanism in the SCAs is calculated on the basis of annual settlement and all power supply interruption incidents of the power companies are included in the calculation. The Government will visit the two power companies to sample and verify the relevant records and information submitted by the power companies during the annual Auditing Review, including information relevant to power supply incidents, to ensure the accuracy of the performance data provided by the power companies.

Note 1: Incidents subject to the new penalty scheme will not be counted for incentives/penalties under "ASAI" or "Average GSRT".

Note 2: A single incident may cause supply interruptions to more than one group of customers with different interruption durations. Therefore, summation is required to get the total customer interruption duration for a single incident.