

LCQ11: Electricity supply

Following is a question by the Hon Carmen Kan and a written reply by the Secretary for Environment and Ecology, Mr Tse Chin-wan, in the Legislative Council today (March 20):

Question:

Regarding electricity supply, will the Government inform this Council:

(1) whether it knows the following information of the two power companies in each of the past six years (set out in a table);

(a) the number of electricity supply interruption incidents, as well as the number of customers involved in the electricity supply interruptions, the duration of electricity supply interruptions, and the time required for restoring electricity supply;

(b) among the incidents mentioned in (1)(a), the number of cases in which the sum of the product of the number of customers involved in the electricity supply interruptions and duration of electricity supply interruptions was (i) up to 5 million minutes but fewer than 10 million minutes, (ii) up to 10 million minutes but fewer than 15 million minutes, (iii) up to 15 million minutes but fewer than 30 million minutes, and (iv) up to 30 million minutes or above;

(c) the number and percentage of electricity supply incidents involving problems with facilities and equipment for electricity generation, supply, transmission and distribution, etc;

(d) the amount of penalties imposed as a result of electricity outage incidents or the amount of incentive payment awarded for subsequent restoration of electricity supply within a specified period of time;

(e) the amount of money invested in repair and maintenance projects and its percentages in the total operating expenses;

(f) a breakdown of the capital expenditures covered by the average net fixed assets and the year-on-year rates of change of the relevant figures; and

(g) the operating costs and their year-on-year rates of change.

(2) whether it has required that the two power companies must invest a certain percentage of resources in the maintenance of electrical equipment with a view to increasing the reliability and safety of their electricity supply; if so, of the details; if not, the reasons for that;

(3) whether it will require the two power companies to reduce their operating

and financial expenditures; if so, of the details; if not, the reasons for that;

(4) given that according to the information relating to the 2024 Tariff Review submitted by CLP Power Hong Kong Limited (CLP) to the Panel on Environmental Affairs of this Council, none of the projects under CLP's approved 2024 Development Plan involve new generating units but the relevant total estimated capital expenditures amount to \$52.9 billion, whether it has gained an understanding of the reasons for that;

(5) whether it knows the percentages of various estimated expenditures (including that on repair and maintenance) of the two power companies in their total estimated expenditures for each year from 2024 to 2028 (set out in a table); and

(6) as the Government indicated on June 14, 2023 that it was actively discussing with the National Energy Administration a further increase in the supply of zero-carbon energy from the Mainland to Hong Kong and it would not rule out the possibility of purchasing any kind of zero-carbon energy (including nuclear electricity and all types of renewable energy) from the Mainland, and the Government was open-minded about introducing new suppliers for the supply of electricity to the Northern Metropolis and the artificial islands in the Central Waters, whether the Government will consider having the Government investing directly in the relevant energy resources with a view to providing reliable and clean electricity to such areas at reasonable prices; if so, of the details; if not, the reasons for that?

Reply:

President,

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 corporate affairs of the power companies. The SCAs set out the obligations of the power companies, the returns for shareholders, and the arrangements by which the Government monitors the companies' electricity-related corporate affairs. The power companies are obliged to contribute to the development of Hong Kong by providing, operating and maintaining sufficient electricity related-facilities and supplying electricity to meet demand. The power companies should also provide the public with services that are adequate to meet demand, efficient and of high quality in, inter alia, supply reliability, customer performance, efficiency and customer services, at the lowest costs which are reasonable in the light of financial and other considerations. In return, they are entitled to earn a reasonable level of returns. In accordance with the SCAs, the Government conducts annual Auditing Reviews with the power companies with regards to technical, environmental and financial performance, including customer performance and energy efficiency

performance, of the power companies. Under the mechanism, an incentive and penalty mechanism has been established.

In parallel, the Government monitors the operation of the power companies in accordance with the Electricity Ordinance (Cap. 406) (the Ordinance) to ensure a safe and reliable supply of electricity in Hong Kong. The Electrical and Mechanical Services Department (EMSD) regulates, in accordance with the Ordinance, the operation of the power companies and conditions of their power supply systems through measures including daily communications with the power companies, inspections of relevant power supply facilities and regular meetings with the power companies for discussion of matters related to power supply. The Ordinance also stipulates the powers and obligations of electricity suppliers, which includes giving the Director of Electrical and Mechanical Services a report of the cause of the accident and what remedial action has been or will be done after an electrical accident so as to prevent recurrence of similar accidents.

My reply to the question raised by the Hon Carmen Kan is as follows:

(1) (a) to (g) and (5) Details on electricity supply interruptions of the power companies occurred since the commencement of the existing SCAs in late 2018 (for CLP Power Hong Kong Limited (CLP)) and in early 2019 (for The Hongkong Electric Company, Limited (HKE)) respectively, as well as relevant information on incentives/penalties, are set out in Annex 1. Financial information covering operating costs and capital expenditures of the power companies is detailed in Annex 2.

(2) and (3) The Government has all along been stringently carrying out gate-keeping duties under the framework of the SCAs to ensure that electricity tariffs are maintained at a reasonable level. Through the reviews of five-year Development Plans (DPs), annual tariff reviews as well as annual Auditing Reviews, the Government scrutinises capital expenditures of the power companies to avoid increase in profits through premature, excessive or unnecessary investments, and requests the power companies to exercise stringent control over operating costs, with a view to preventing them from passing unnecessary costs onto consumers.

The SCAs do not specify that the power companies must invest a certain percentage of resources in the maintenance of electrical equipment. Instead, the SCAs require the power companies to ensure that they provide sufficient facilities to meet electricity demand, and are responsible for the provision, operation and proper maintenance of their facilities. The power companies will therefore establish maintenance plans with reference to international standards, recommendations of equipment manufacturers and system operation experience. They also regularly examine the health condition of their assets for electricity generation, transmission and distribution (T&D) and other areas, as well as conduct periodic maintenance and improvement works of varying scales, in order to ensure a stable and reliable electricity supply. With regard to individual power incidents, the EMSD follows up on reports submitted by a power company by requiring inspection of the systems in question and those of the same types, requesting the power company to step up

relevant arrangements for repair and maintenance, etc, so as to ensure reliability of electricity supply and prevent recurrence of similar incidents.

(4) Following a number of rigorous negotiations in last year's review of the 2024-28 DPs proposed by the two power companies, the Government only accepted those capital project proposals which were absolutely necessary. In particular, given the substantial investment in the 2018-23 DPs for replacement of coal generation by cleaner energy and the Government's plan to import more clean energy in co-operation with the Mainland in the future, there is a need to contain further investment by the two power companies in local generation for the time being. Therefore, the amount of total estimated capital expenditure of both companies are lower than that for the previous five-year DP. The CLP's total estimated capital expenditure for the 2024-28 DP is \$52.9 billion, which includes an estimated expenditure of \$13.2 billion for its generation system (e.g. the battery energy storage system project) and an estimated expenditure of \$38.3 billion for its T&D system (e.g. new substations, additional circuits and improvement and reinforcement of existing system) to ensure that adequate T&D facilities will be in place to meet demand, including that from new developments in the Northern Metropolis and new data centres.

(6) The Environment and Ecology Bureau is discussing with the National Energy Administration to further increase the supply of zero-carbon energy to Hong Kong. Under the overall target of achieving carbon neutrality before 2050, we will progressively increase the use of zero-carbon energy for electricity generation taking into account four important factors, i.e. safety, reliability, affordability and environmental performance. We will not rule out the possibility of purchasing any kind of zero-carbon energy, including nuclear electricity and all types of renewable energy, from the Mainland and will also explore the feasibility of developing zero-carbon energy projects near Hong Kong.