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Clerk to Finance Committee  
Legislative Council  
Legislative Council Complex  
1 Legislative Council Road  
Central, Hong Kong  
(Attn: Ms Ada LAU)  
(Fax: 2978 7569)

Dear Ms Lau,

**Finance Committee  
Follow-up Matters Arising from the Meeting on 4 January 2019**

**45CG – District Cooling System at the Kai Tak Development**

In considering 45CG – District Cooling System (DCS) at the Kai Tak Development (KTD) at the meeting of the Finance Committee on 4 January 2019, Members requested the Government to provide supplementary information on the project. Our reply is set out below.

**Estimated Cost for Remaining Works under Phase III of DCS (Phase IIIR)**

A Member would like to know the reasons for the increase in the estimated cost for Phase IIIR of the DCS at the KTD from \$1,039.8 million (re. paragraph 13 of PWSC(2015-16)62) to \$1,281.8 million (re. paragraph 13 of PWSC(2018-19)30), and the breakdown of the original estimated cost for the remaining works concerned (i.e. \$1,039.8 million).

A breakdown of the \$1,039.8 million mentioned in paragraph 13 of PWSC(2015-16)62 is as follows -

	\$ million (in money-of-the-day prices)
(a) DCS electrical and mechanical installation and associated builders' works	413.3
(b) Mains laying	311.4
(c) Connection facilities at user buildings	117.9
(d) Environmental mitigation measures	9.8
(e) Consultants' fees for	11.6
(i) contract administration	7.6
(ii) management of resident site staff (RSS)	4.0
(f) Remuneration of RSS	81.2
(g) Contingencies	94.6
Total	1,039.8

The difference between the above total and the estimated cost of \$1,281.8 million mentioned in paragraph 13 of PWSC(2018-19)30 is about \$242 million. The increase in the estimated cost is mainly due to the following two factors -

- (a) the DCS at the KTD has been in operation since 2012-13. After considering the experience gained from the operation of the DCS in the past few years and the latest development of the KTD, the Electrical and Mechanical Services Department (EMSD) has to fine-tune the design of the DCS. Without changing the total designed cooling capacity of the DCS (i.e. a total cooling capacity of 284 megawatt of refrigeration (MW<sub>r</sub>) plus a 10% back-up cooling capacity), EMSD has adjusted the combination of chillers and improved the design of the connection facilities at user buildings' substations, having regard to the changes in the number of user buildings and the actual demand, to ensure that the DCS achieves its

optimal operational efficiency. As a result, the estimated cost has increased; and

- (b) as the commencement of some works at the KTD and user buildings was delayed, so was that of the associated DCS works. Thus, the costs have been affected by the latest increase in price adjustment factors. Furthermore, in view of the increase in the overall project estimate (see (a) above) and the latest price adjustment factors, the consultants' fees for contract administration and management of RSS, the remuneration of RSS and the contingency costs also need to be adjusted upward accordingly.

In a letter dated 14 January 2019, a Member requested the Government to tabulate the breakdowns of the above estimated project costs by financial year and by item. The information is at Annex.

### **Uncommitted Balance**

A Member requested the Government to explain the source and the breakdown of the \$167.6 million released from the provision for price fluctuation in the uncommitted balance for Phases 1, II & III (Packages A, B and C) of the DCS, as stated in footnote 2 of PWSC(2018-19)30.

The relevant breakdown is listed in the table below. As the tender prices of some of the works are lower than the estimates, the corresponding provisions for price fluctuation and other provisions for price fluctuation are also lower than the original estimates, resulting in a larger amount of uncommitted provision for price fluctuation.

	Uncommitted provision for price fluctuation (\$ million)
Completed works of Phases I, II & III (Package A)	115.1 <sup>1</sup>
Uncompleted works of Phase III (Packages B and C)	52.5 <sup>2</sup>
Total	167.6

<sup>1</sup> The relevant balance is the savings from works.

<sup>2</sup> This is mainly the savings from relevant works.

## **Financial Position of DCS upon Commissioning**

A Member requested the Government to provide the financial position of the DCS upon commissioning to illustrate whether its operation can meet the Government's target of recovering both the capital and operating costs over the project life of 30 years, and the progress in meeting this goal.


It is the Government's policy to first commit resources for the initial construction works, and then recover all the costs from building owners or their agents after the DCS comes into operation.

For this reason, the financial model of the DCS has already envisaged a negative net revenue during the initial stage of operation. Compared to the projections in the financial model, while the net revenue up to 2017-18 is negative, the amount was smaller than forecast.

EMSD has undertaken to conduct a review on the actual costs and revenues of the DCS at least every five years and to estimate whether the target of achieving cost recovery in 30 years can be achieved. The first review will be conducted in 2019.

The Government is currently planning to construct an additional DCS at the KTD. Subject to funding approval, the Government will invite tender for the works project. We do not consider it prudent to disclose the financial information of the existing DCS at the KTD at this stage, lest it would affect tendering prices. We will disclose the information after completion of the tendering process.

Yours sincerely,



( Paul WONG )

for Secretary for the Environment

c.c. Secretary for Financial Services and the Treasury (Attn: Mr Denny HO)  
Director of Electrical and Mechanical Services (Attn: Mr Harry LAI  
Mr LO Kam Cheung)

Breakdown of the original estimated cost of \$1,039.8 million as stated in paragraph 34 of PWSC(2015-16)62 by financial year and by item-

	in money-of-the-day prices (\$ million)							
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Sub-total
(a) DCS electrical and mechanical installation and associated builders' works	90.2	152.8	92	78.3				413.3
(b) Mains laying	68	115.1	69.3	59				311.4
(c) Connection facilities at user buildings	15.6	26.3	22	7.6	4.4	32.6	9.4	117.9
(d) Environmental mitigation measures	2.1	3.6	2.2	1.9				9.8
(e) Consultants' fees for:	1.6	2.6	1.6	1.5	0.1	0.1	0.1	7.6
(i) contract administration								
(ii) management of resident site staff (RSS)	0.8	1.4	0.8	0.7	0.1	0.1	0.1	4.0
(f) Remuneration of RSS	16.8	28.4	13	18.4	0.5	3.2	0.9	81.2
(g) Contingencies	19.5	33.1	17.9	18.7	0.5	3.6	1.3	94.6
Sub-total	214.6	363.3	218.8	186.1	5.6	39.6	11.8	Total 1,039.8

Breakdown of the estimated cost of \$1,281.8 million as stated in paragraph 13 of PWSC(2018-19)30 by financial year and by item -

	in money-of-the-day prices (\$ million)								
	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	Sub-total
(a) DCS electrical and mechanical installation and associated builders' works	4.2	114.7	281.9	139.3					540.1
(b) Mains laying	2.5	67.4	165.8	82					317.7
(c) Connection facilities at user buildings	1.5	36.5	89.5	44.5	1.1	0.2	9.7	0.3	183.3
(d) Environmental mitigation measures	0.1	2	5.2	2.6					9.9
(e) Consultants' fees for:	0.1	1.8	4.5	2.2	0.1	0.1	0.1	0.1	9.0
(i) contract administration									
(ii) management of resident site staff (RSS)	0.1	0.8	2.5	1.2	0.1	0.1	0.1	0.1	5.0
(f) Remuneration of RSS	0.6	21	51.6	25.3	0.1	0.1	1.3	0.1	100.1
(g) Contingencies	0.9	24.5	60.2	29.7	0.1	0.1	1.1	0.1	116.7
Sub-total	10.0	268.7	661.2	326.8	1.5	0.6	12.3	0.7	Total 1,281.8