

**立法會**  
**Legislative Council**

LC Paper No. CB(1)1110/17-18  
(These minutes have been seen  
by the Administration)

Ref : CB1/PL/EA

**Panel on Environmental Affairs**

**Minutes of meeting**  
**held on Monday, 23 April 2018, at 2:30 pm**  
**in Conference Room 3 of the Legislative Council Complex**

**Members present** : Hon Tanya CHAN (Chairman)  
Dr Hon Junius HO Kwan-yiu, JP (Deputy Chairman)  
Hon LEUNG Yiu-chung  
Hon WONG Ting-kwong, GBS, JP  
Hon CHAN Hak-kan, BBS, JP  
Hon Steven HO Chun-yin, BBS  
Hon Frankie YICK Chi-ming, SBS, JP  
Hon WU Chi-wai, MH  
Hon CHAN Chi-chuen  
Hon CHAN Han-pan, JP  
Hon Kenneth LEUNG  
Hon KWOK Wai-keung, JP  
Hon Dennis KWOK Wing-hang  
Dr Hon Elizabeth QUAT, BBS, JP  
Hon Martin LIAO Cheung-kong, SBS, JP  
Ir Dr Hon LO Wai-kwok, SBS, MH, JP  
Hon CHUNG Kwok-pan  
Hon CHU Hoi-dick  
Hon SHIU Ka-fai  
Hon HUI Chi-fung  
Hon Kenneth LAU Ip-keung, BBS, MH, JP  
Hon Gary FAN Kwok-wai  
Hon Tony TSE Wai-chuen, BBS

**Members attending** : Hon Starry LEE Wai-king, SBS, JP  
Hon Alvin YEUNG  
Hon HO Kai-ming  
Hon LUK Chung-hung

**Member absent** : Dr Hon Priscilla LEUNG Mei-fun, SBS, JP

**Public Officers attending** : **For item IV**

Mr WONG Kam-sing, GBS, JP  
Secretary for the Environment

Mr Vincent LIU, JP  
Deputy Secretary for the Environment

Ms Queenie LEE  
Principal Assistant Secretary for the Environment  
(Electricity Reviews)

Mr Paul WONG  
Principal Assistant Secretary for the Environment  
(Energy)

Mr Raymond POON  
Assistant Director (Electricity and Energy Efficiency)  
Electrical and Mechanical Services Department

Mr Alan CHOW  
Chief Electrical and Mechanical Engineer  
(Electricity Team)  
Electrical and Mechanical Services Department

Mr Barry CHU  
Chief Engineer/Energy Efficiency A  
Electrical and Mechanical Services Department

**For item V**

Mr TSE Chin-wan, BBS, JP  
Under Secretary for the Environment

Mr CHEN Che-kong  
Assistant Director (Water Policy)  
Environmental Protection Department

Mr Anthony FOK  
Principal Environmental Protection Officer  
(Sewerage Infrastructure)  
Environmental Protection Department

Mr TAI Wai-man  
Assistant Director/Projects and Development (Acting)  
Drainage Services Department

Mr CHOI Chun-ming  
Chief Engineer/Consultants Management  
Drainage Services Department

Mr FUNG Yiu-man  
Chief Engineer/Project Management (Acting)  
Drainage Services Department

**Related  
organizations**

**: For item IV**

CLP Power Hong Kong Limited

Mr T K CHIANG  
Managing Director

Ms Quince CHONG  
Chief Corporate Development Officer

Mr Joseph LAW  
Senior Director - Planning and Development

Mr Stephen CHAN  
Director - Strategic Planning and Regulatory Affairs

The Hongkong Electric Company Limited

Mr C T WAN  
Managing Director

Mr T C YEE  
General Manager (Corporate Development)

Ms Mimi YEUNG  
General Manager (Public Affairs)

Mr K M WONG  
Chief Financial Officer

Mr W K LEUNG  
Head of Customer Business Development

**Clerk in attendance** : Ms Angel SHEK  
Chief Council Secretary (1)1

**Staff in attendance** : Mr Jason KONG  
Senior Council Secretary (1)1

Miss Judy YEE  
Council Secretary (1)1

Miss Mandy POON  
Legislative Assistant (1)1

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**I. Confirmation of minutes**

(LC Paper No. CB(1)742/17-18 — Minutes of the meeting held  
on 26 February 2018)

The minutes of the meeting held on 26 February 2018 were confirmed.

**II. Information papers issued since last meeting**

2. Members noted that the following papers had been issued since the last meeting:

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(LC Paper No. CB(1)762/17-18(01) — Letter dated 26 March 2018 from Hon CHAN Han-pan on the control on noise emission from in-use vehicles (Chinese version only)

LC Paper No. CB(1)766/17-18(01) — Administration's response to the letter from Hon HUI Chi-fung on the issues relating to the recycling of yard waste

LC Paper No. CB(1)802/17-18(01) — Referral arising from the meeting between Legislative Council Members and Wan Chai District Council members on 26 January 2018 regarding the regulation of excessive external lighting (Chinese version only) (Restricted to Members)

LC Paper No. CB(1)839/17-18(01) — Administration's response to the letter from Hon CHAN Han-pan on the control on noise emission from in-use vehicles)

**III. Items for discussion at the next meeting**

(LC Paper No. CB(1)809/17-18(01) — List of follow-up actions

LC Paper No. CB(1)809/17-18(02) — List of outstanding items for discussion)

3. Members agreed to discuss the following items at the next regular meeting scheduled for Monday, 28 May 2018, at 2:30 pm:

(a) protection of endangered species of animals and plants; and

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- (b) latest progress of the Cleaner Production Partnership Programme.

4. At the suggestion of Mr HUI chi-fung, members agreed that the Panel would receive public views on item (a) above at the next regular meeting. The Chairman advised that members would be informed of the meeting arrangements in due course.

*(Post-meeting note: At the request of the Administration and with the concurrence of the Chairman, discussion on item (b) had been deferred to a future meeting.)*

**IV. Implementation details concerning renewable energy, energy efficiency and conservation, and Fuel Clause Charge adjustment under the post-2018 Scheme of Control Agreements**

(LC Paper No. CB(1)809/17-18(03) — Administration's paper on "Implementation Details concerning Renewable Energy, Energy Efficiency & Conservation and Fuel Clause Charge Adjustment Mechanism under the Post-2018 Scheme of Control Agreements"

LC Paper No. CB(1)809/17-18(04) — Background brief on "Energy saving and renewable energy arrangements under the Scheme of Control Agreements" prepared by the Legislative Council Secretariat

LC Paper No. CB(1)840/17-18(01) — CLP Power Hong Kong Limited's paper on "New Initiatives under the New Scheme of Control Agreement")

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Briefing by the Administration, The Hongkong Electric Company Limited and CLP Power Hong Kong Limited

5. With the aid of a power-point presentation, the Deputy Secretary for the Environment ("DSEN") briefed the Panel on the new initiatives to promote energy efficiency and conservation ("EE&C") and the development of renewable energy ("RE"), including the introduction of the Feed-in Tariff ("FiT") Scheme and the RE Certificates Scheme, under the post-2018 Scheme of Control Agreements ("SCAs") with the two power companies. He also advised that in the regulatory period under the post-2018 SCAs, a more frequent Fuel Clause Charge adjustment mechanism would be adopted to ensure that the actual fuel costs borne by the power companies would be reflected in the electricity tariffs in a timelier manner.

6. With the aid of power-point presentations, the Managing Director, The Hongkong Electric Company Limited ("MD/HKE"), the Head of Customer Business Development, HKE, and the Managing Director, CLP Power Hong Kong Limited ("MD/CLP") provided further details on the initiatives implemented/to be implemented by the two power companies respectively to further promote EE&C and the development of RE.

*(Post-meeting note: The three sets of power-point presentation materials from the Administration, HKE and CLP were circulated to members on 23 April 2018, vide LC Paper Nos. CB(1)843/17-18(01) to (03).)*

*(At 3:18 pm, the Chairman left the meeting and the Deputy Chairman took the chair.)*

Discussion

*General*

7. Mr WU Chi-wai and the Deputy Chairman considered that the FiT Scheme had the potential to create a win-win situation in which suppliers/contractors of RE systems and building professionals would benefit from the business opportunities created and owners of RE systems would save energy costs. Ir Dr LO Wai-kwok and Mr CHAN Hak-kan expressed support for the measures to promote the development of distributed RE. Mr Kenneth LAU said that he supported the implementation of the FiT Scheme, and Heung Yee Kuk looked forward to the Administration's measures to promote the development of solar power systems at buildings in the rural areas. Mr CHAN and Mr HUI Chi-fung considered that the

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proposed FiT rates were reasonable and attractive to potential RE developers.

*Implementation arrangements for Feed-in Tariff Scheme*

8. Mr WU Chi-wai enquired about the effective period and adjustment mechanism of the FiT rates. Mr Martin LIAO asked whether a limit would be imposed on the duration of FiT for each participant of the FiT Scheme.

9. Ir Dr LO Wai-kwok pointed out that the contribution of distributed RE to the overall electricity demand in Hong Kong might be marginal due to the low power generation efficiency and cost effectiveness of the distributed RE systems.

10. Mr LEUNG Yiu-chung expressed concern that the low power generation efficiency, long payback period and large space required for installation of photovoltaic ("PV") systems would discourage members of the public from participating in the FiT Scheme.

11. In response to the comments and questions above, SEN said that the power generation efficiency of PV systems had significantly improved in recent years. The FiT rates to be adopted at the launch of the FiT Scheme were much higher than the prevailing electricity tariffs (depending on the generating capacities of participating RE systems) and could substantially shorten the payback periods of participating RE systems. The FiT rates applicable to new participants of the FiT Scheme would be reviewed annually. For each participating RE system, the FiT rate adopted at the time of joining the Scheme would remain unchanged throughout the entire lifetime of the system, or until the end of 2033 (i.e. the date when the post-2018 SCAs would expire), whichever was the earlier.

12. To better protect the interest of FiT Scheme participants, in particular those who joined the Scheme closer to the expiry of the post-2018 SCAs, Mr CHU Hoi-dick and the Deputy Chairman asked if the Administration would consider requiring the power companies to purchase electricity generated from each participating RE system for a fixed period of, say, 10 years.

13. SEN remarked that some overseas jurisdictions had put in place guaranteed FiT payment periods ranging from less than 10 years to over 20 years, and the durations of the guaranteed payment periods were normally commensurate with the FiT rates offered. In Hong Kong's case, while there was not a fixed FiT payment period, it was guaranteed to all participants that FiT would be offered until 2033 under the post-2018 SCAs. Those who joined the Scheme early would have an "early-bird advantage" and receive



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FiT for a longer period, and might be able to make a return after the payback period. The Administration would keep in view of market developments and ensure that the annually-reviewed FiT rates could continue to provide sufficient incentives to potential RE developers and owners.

14. Mr CHU Hoi-dick considered that for the sake of equity and a healthy development of distributed RE, all participants of the FiT Scheme should receive FiT for equal periods and at the same rates regardless of their timings of joining the Scheme. SEN clarified that it was not the Administration's policy objective to promote an "early-bird advantage" under the FiT Scheme. Nevertheless, the "early-bird advantage" phenomenon was a corollary of the FiT arrangements under the post-2018 SCAs, and could be observed in some other jurisdictions that had implemented FiT.

15. As solar energy equipment was one of the green and amenity facilities that were allowed to be installed in New Territories exempted houses ("NTEHs") without seeking permission from the Lands Department or the Buildings Department, the Deputy Chairman suggested the Administration and/or the two power companies conduct pilot projects at NTEHs at the initial stage of implementation of the FiT Scheme, and share the experience of the successful pilot projects to other potential FiT Scheme participants.

16. Mr Tony TSE and the Deputy Chairman opined that the Administration should issue guidance notes on the legal requirements involved and other related issues as early as possible to ensure building safety and legal compliance by RE developers in general. Mr CHU Hoi-dick suggested the Administration provide information on the different PV panel models and RE system contractors to enable members of the public to make informed choices. Mr Martin LIAO requested the Administration to provide more information on the expected payback periods of RE systems installed at different buildings under the FiT Scheme.

17. SEN pointed out that the Environment Bureau ("ENB") had been coordinating with relevant bureaux/departments to collate information on the key legal requirements involved in the installation of distributed RE systems. The Electrical and Mechanical Services Department ("EMSD") would revamp its website "HK RE Net" expeditiously and provide relevant information thereon. In addition, the Administration would maintain close communication with contractors of PV systems and owners' corporations/committees with a view to enhancing their understanding of the related requirements. As regards other information such as PV panel models and RE system contractors, members of the public would be able to obtain such information from different channels, including EMSD's website and market participants (such as suppliers and contractors of RE systems). The

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Administration would strive to provide relevant information to the trades and other stakeholders. For instance, the Administration would explore how best to publish sample cases on distributed RE projects of different scales, which could include information on their cost effectiveness and payback periods.

18. The Chairman and the Deputy Chairman enquired if the Administration had estimated the participation rates of the FiT Scheme in CLP and HKE's service areas respectively and the projected contribution from participating RE systems to the local electricity demand. The Chairman also asked about the numbers of enquiries on the FiT Scheme received so far by the two power companies and profiles of the enquirers.

19. SEN advised that EMSD had commissioned a study on the potential and constraints of installing PV systems on rooftops of different types of buildings. The Administration would be in a better position to gauge the potential of developing distributed RE in Hong Kong after completion of the study.

20. MD/HKE advised that close to 80 distributed RE systems had been connected to HKE's grid. HKE had received 13 enquiries related to the development of distributed RE systems since the announcement of the implementation details of the FiT Scheme. MD/CLP advised that there were currently over 300 distributed RE systems in CLP's grid. CLP would communicate with the owners of those systems proactively and provide them with information on the application procedure for the FiT Scheme and installation of smart meters for recording the amount of electricity generated by the RE systems. Since the announcement of the implementation details of the new initiatives to promote RE and EE&C, CLP had received over 100 enquiries on RE and about 30 enquiries on the new Eco-Building Fund from its clients and contractors of RE systems.

*Measures to further facilitate development of distributed renewable energy*

21. Mr Kenneth LAU and Mr Kenneth LEUNG noted that an FiT Scheme participant would need to apply for a business registration and file a profits tax return for the income from selling electricity generated by the RE system. They expressed concern that such requirements might hinder members of the public from participating in the Scheme. They urged the Administration to consider exempting individuals participating in the FiT Scheme from the above requirements. The Chairman asked about the timetable for implementing relevant facilitation measures.

22. SEN and DSEN responded that the Administration was currently studying the above issues, with a view to implementing relevant facilitation

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measures before RE system owners who were individuals would receive FiT from the power companies.

23. Mr LEUNG Yiu-chung, Mr HUI Chi-fung and Mr Kenneth LAU expressed concern that the existing regulatory requirements regarding the installation of PV systems on building rooftops, etc. were overly restrictive. A case in point was that the height of a PV system erected on a building rooftop could not be higher than 1.5 m. Mr LEUNG, Mr LAU and the Deputy Chairman enquired whether and when the Administration would relax the relevant requirements with a view to promoting the development of distributed RE. Mr LAU suggested that the same set of regulatory requirements be adopted for the installation of PV systems in small houses and other kinds of village houses.

24. SEN and DSEN responded that to facilitate the installation of PV systems in NTEHs, the Administration would clarify the requirements relating to the provision of green and amenity facilities in NTEHs, and explore room for relaxing the requirements in this regard. The Administration planned to provide the updated information to the public before commencement of the FiT Scheme. SEN supplemented that while the installation of PV systems on existing buildings was subject to more constraints, PV systems might be incorporated in the designs of new buildings for better utilization of space.

25. Mr HUI Chi-fung held that the Administration should adopt a multipronged approach in promoting the development of distributed RE, rather than relying on the FiT Scheme alone. He asked whether the Administration would consider, with reference to the measures adopted by overseas jurisdictions, (a) providing subsidies, tax incentives and/or interest-free loans for the installation of PV systems, (b) launching a leasing scheme for PV systems, and (c) promoting private investments in the PV market.

26. SEN responded that as in other jurisdictions, the central plank of the policy on promoting the development of distributed RE was to provide sufficient financial incentives to potential RE developers. Although some jurisdictions had implemented an array of measures to complement FiT, those measures might not be effective or suitable for Hong Kong. The Administration considered that the proposed FiT Scheme should be sufficiently attractive because owners of RE systems would be able to recover the installation, operation and maintenance costs in around 10 years, and FiT would be offered until the end of 2033 under the current arrangements. Given that PV systems could generally last for over 20 years, many participants of the FiT Scheme might be able to make a return on their investments in the PV systems after the payback period.

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27. Mr Martin LIAO enquired if the Administration would implement targeted measures to facilitate the installation of distributed RE systems in residential and commercial properties with fragmented ownerships. SEN responded that EMSD would organize briefing sessions and seminars on installation of RE systems, and some might be organized for the property management companies and owners' corporations concerned to provide them with more information on distributed RE systems, so that they might be more willing to have those systems installed on their premises.

28. Mr HUI Chi-fung asked whether the new Eco-Building Fund of CLP and the new Smart Power Fund of HKE might be utilized to provide incentives to owners' corporations for installing PV systems in their buildings.

29. MD/CLP explained that the main objective of CLP's new Eco-Building Fund was to support EE&C work, which did not cover the installation of PV systems. It was observed that some contractors of RE systems had been providing flexible financing options for their clients. MD/HKE added that HKE's new Smart Power Fund had a similar objective and scope. It was envisaged that both the development of RE and promotion of EE&C would help improve air quality and combat climate change. If the new Smart Power Fund was to be used to also support the development of RE, less financial resources could be allocated to the promotion of EE&C.

*Tariff implications of Feed-in Tariff*

30. The Deputy Chairman considered that the Administration should provide more details on the tariff implications of the FiT Scheme. Mr Frankie YICK enquired whether the Administration would consider setting an upper limit on the amount of FiT offered by the two power companies to their clients, and funding the FiT payments in excess of that limit to contain the tariff impact. Mr Tony TSE asked about the Administration's plan, if any, to purchase RE Certificates from the two power companies and encourage corporations that were heavy users of electricity to purchase RE Certificates.

31. SEN responded that the development of RE required the concerted efforts of all parties concerned. While electricity consumers would need to bear the costs of using RE in Hong Kong, they would also benefit from better air quality brought about by the use of cleaner energy. He explained that, irrespective of the scales of RE projects, RE was currently considerably more expensive than other energy sources used in Hong Kong. Even if large-scale RE systems were developed by the power companies instead of promoting

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distributed RE through FiT, the additional investments made and operating expenses incurred by the power companies would likewise have tariff implications. Due to space constraints, Hong Kong's potential for developing distributed RE was rather limited compared to some other places, and hence the tariff implications of the FiT Scheme should be relatively insignificant (currently estimated to be below 1%). In line with the practice adopted in many other jurisdictions, RE Certificates would be available for sale to all electricity consumers, including both corporations and individuals. To help mitigate the tariff impact, the Government would not join the FiT Scheme for its RE facilities.

*Development of large-scale renewable energy projects*

32. Mr CHAN Hak-kan enquired if the Administration planned to develop more large-scale RE systems and/or encourage the private sector to provide such systems on their premises.

33. SEN responded that according to the experiences of other places, the contribution from distributed RE systems to the overall electricity demand was limited. Nevertheless, it was expected that the implementation of the FiT Scheme would be conducive to the development of RE in Hong Kong by promoting public participation. The Administration would continue to explore further measures to facilitate installation of distributed RE systems in both new and existing buildings in collaboration with relevant professional bodies, such as the Hong Kong Green Building Council. The Government would take the lead in installing RE facilities at its buildings and premises. To support the development of such facilities, \$800 million had been set aside under the 2018-2019 Budget, on top of the allocation of \$200 million in the previous financial year.

*Renewable energy generation target*

34. Mr CHAN Hak-kan enquired whether the Administration would consider setting a more ambitious long-term target for the use of RE in Hong Kong. Mr CHU Hoi-dick opined that the cost difference between RE and fossil fuels would continue to narrow, and hence a more ambitious and forward-looking target for RE generation should be adopted in Hong Kong.

35. SEN advised that issues relating to Hong Kong's realizable RE potential had been thoroughly considered in the context of formulating the Hong Kong's Climate Action Plan 2030+, which stated that the potential contribution from RE to the local electricity demand was in the range of 3% to 4% by 2030. Although RE constituted a much larger proportion in the energy mix in some other jurisdictions, the majority of those places depended

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on other RE sources such as hydropower, the supply of which was very limited in Hong Kong. The focus of the RE generation target of Hong Kong would be placed on solar generation, which was a more available and reliable RE source in Hong Kong. He supplemented that the Paris Agreement required parties to the United Nations Framework Convention on Climate Change to review their greenhouse gas emission reduction targets every five years. The Administration would take the opportunity of the next five-year review to re-examine Hong Kong's RE generation target. In addition, the Administration planned to launch a public engagement exercise by the end of 2018 on carbon reduction measures, which would cover the development of RE.

36. Mr CHU Hoi-dick sought details on the underlying assumptions of the aforementioned RE potential of Hong Kong. SEN explained that the estimation had taken into account the RE potential from wind, solar and waste-to-energy, as well as the potential implementation of the FiT Scheme.

*Installation of separate electricity meters for subdivided units*

37. Mr LUK Chung-hung and Mr LEUNG Yiu-chung questioned the Administration and the two power companies' commitment to resolving the problem of landlords reselling electricity to tenants of subdivided units for profit. Noting that the power companies had pledged to subsidize the rewiring work for the installation of separate electricity meters for those tenants through the new Community Energy Saving Funds ("CESFs"), Mr LUK asked if targets would be established in this regard. He also enquired how the Administration would persuade landlords and owners' corporations to support the installation of separate electricity meters, and whether the Administration would consider prohibiting the resale of electricity by legislative means or supporting his proposed Member's Bill for the purpose. Mr LEUNG also considered that laws should be enacted to provide better protection to tenants of subdivided units from the unscrupulous practices of their landlords.

38. SEN advised that the post-2018 SCAs provided an opportunity for the Administration to implement new initiatives in collaboration with the two power companies to better address the needs of different sectors of the community. DSEN explained that one of the objectives of CESFs was to support disadvantaged groups, including tenants of subdivided units. Under CESFs, financial assistance to those tenants might be provided in different ways, such as subsidizing the replacement/purchase of energy-efficient electrical appliances and the rewiring work for installation of separate electricity meters. The two power companies would announce the details of related programmes in due course. He added that the installation of separate

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electricity meters for subdivided units would be subject to, among other things, the agreement by the landlords and owners' corporations of the building, and fulfilment of the relevant technical and safety requirements.

*Other issues*

39. Mr LEUNG Yiu-chung enquired about the reasons for the slow progress in constructing RE facilities on Po Toi Island to replace the existing power generators. MD/HKE responded that HKE was firmly committed to taking forward the above project. The preparatory work for the project took considerable time because complex legal issues were involved and HKE had to prepare for the required planning application.

40. Ir Dr LO Wai-kwok sought elaboration on the potential impact of the increasing use of natural gas for electricity generation and the fluctuation of international fuel prices on future electricity tariffs. MD/CLP responded that CLP would increase the percentage of gas generation in accordance with the government policy. As natural gas was more expensive than coal, the change in fuel mix was expected to exert an upward pressure on electricity tariff. To mitigate the tariff impact, CLP would continue its efforts to import liquefied natural gas ("LNG") from diversified sources to enhance its bargaining power vis-à-vis suppliers and minimize the impact of fluctuation of LNG prices in the market. In this connection, CLP had proposed the construction of an offshore LNG terminal to diversify supply sources and ensure a reliable supply of LNG for Hong Kong. MD/HKE shared similar views on the impact of increasing gas generation on electricity tariff. He added that since some power generating units of HKE were approaching the end of their useful lives and would be replaced in the near future, this would also exert pressure on the electricity tariff.

**V. Rehabilitation of underground sewers and upgrading of Central and East Kowloon sewerage**

(LC Paper No. CB(1)809/17-18(05) — Administration's paper on "Rehabilitation of Underground Sewers and Upgrading of Central and East Kowloon Sewerage")

Briefing by the Administration

41. With the aid of a power-point presentation, the Assistant Director/Projects and Development (Acting), Drainage Services Department

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("AD(P&D)/DSD") briefed members on the Administration's proposals to upgrade (a) part of 4414DS – Rehabilitation of underground sewers and (b) 4344DS – Upgrading of Central and East Kowloon sewerage – phase 3 to Category A at estimated costs of \$391.9 million and \$680.9 million respectively in money-of-the-day prices. He advised that there were about 1 800 km of underground sewers in Hong Kong, and about half of them had been in service for 30 years or more ("ageing sewers"). Based on the results of the "Enhanced Management of Underground Sewer and Drain Networks – Feasibility Study", which evaluated the risks of failures of the existing underground sewers, DSD formulated a territory-wide replacement and rehabilitation ("R&R") programme for about 94 km of sewers that were predicted or confirmed to have high risks of structural failure. DSD would implement the R&R programme in phases under 4414DS. In the first phase, to which the current proposal was related, DSD would rehabilitate about 7 km of underground gravity sewers and conduct condition surveys for around 75 km of underground gravity sewers and associated manholes.

*(Post-meeting note: A set of the power-point presentation materials was circulated to members on 23 April 2018, vide LC Paper No. CB(1)843/17-18(04).)*

*(To allow sufficient time for discussion, the Deputy Chairman extended the meeting for 15 minutes beyond the appointed ending time.)*

## Discussion

### *Comprehensive plan for rehabilitating ageing sewers*

42. Mr Tony TSE supported in principle the Administration's proposals. Noting that 4414DS only covered about 94 km of the ageing underground sewers, he and the Deputy Chairman enquired about the timetable for rehabilitating the remaining ageing sewers and the expected total capital costs involved. The Deputy Chairman called on the Administration to devise a comprehensive plan for rehabilitating ageing sewers, and sought information on how the Administration prioritized the relevant rehabilitation works. He considered that the Administration should provide the above information in the paper to be submitted to the Public Works Subcommittee.

43. The Under Secretary for the Environment ("USEN") and AD(P&D)/DSD explained that:

- (a) DSD conducted routine inspection and maintenance of all underground sewers, and enhanced monitoring of ageing sewers.



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The normal service life of underground sewers was about 40 to 50 years. DSD adopted a five-level risk grading system for the structural conditions of underground sewers. It would conduct systematic investigation and rehabilitation works for underground sewers graded at level 4 or level 5 (i.e. those with the highest risks of structural failure), which comprised about 4% to 5% of all underground sewers;

- (b) among the 94 km of sewers covered by the R&R programme, 19 km had been confirmed by past inspection records to have high risks of structural failure. The proposal under discussion included the rehabilitation of about 7 km of those 19 km of sewers. The design for the rehabilitation works for the remaining 12 km of sewers was more complicated. For example, it would take more time to formulate traffic management measures to mitigate the traffic impact of the rehabilitation works. Project funding would be sought separately after the completion of the design and preparatory work, including consultation with the District Councils concerned; and
- (c) the rest of the sewers covered by the R&R programme (around 75 km) were predicted to have high risks of structural failure. As there was a lack of detailed survey records to ascertain the risks, the Administration now proposed to conduct condition surveys for those sewers. For sewers that were subsequently confirmed by the condition surveys to have high risks of structural failure, DSD would design suitable rehabilitation works and submit the relevant project proposals to the Legislative Council in due course. The Administration was not in a position to estimate the capital costs involved in the required rehabilitation works until after the completion of the condition surveys.

*Construction waste generated from rehabilitation of underground sewers*

44. Mr Tony TSE sought details on the composition and management of construction waste that would be generated from the rehabilitation works under 4414DS. AD(P&D)/DSD explained that most of the construction waste would be sewage sludge removed from the underground sewers before the installation of lining. Inert construction waste would be reused on site or delivered to the public fill reception facilities. The remaining 4 500 tonnes of non-inert construction waste would be landfilled.

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*Enhancing communication with District Councils on sewerage projects*

45. Mr HO Kai-ming expressed support for the Administration's proposals. He remarked that there were incidents where the temporary partial closure of a section of trunk road in a district due to the implementation of sewerage works had affected the traffic conditions in adjacent district(s) as well. To strengthen communication with stakeholders, he suggested that DSD should inform the District Councils of all affected districts of any proposed works project that would have cross-district traffic implications. USEN responded that the Administration would consider Mr HO's suggestion.

Conclusion

46. The Deputy Chairman concluded that members supported the Administration's submission of the proposals to the Public Works Subcommittee for consideration.

**VI. Any other business**

47. There being no other business, the meeting ended at 4:34 pm.

Council Business Division 1  
Legislative Council Secretariat  
11 June 2018