For discussion on
20 January 2025

Legislative Council

Panel on Environmental Affairs

Fast Charger Incentive Scheme and the new round of Cleaner Production Partnership Programme

Purpose

This paper briefs Members on the details of the proposed Fast Charger Incentive Scheme (the Scheme) and the new round of the Cleaner Production Partnership Programme (the Programme).

Background and Objective

2. As announced in the Chief Executive's 2024 Policy Address, the Government will earmark $300 million for a new scheme to encourage the private sector to install fast charging facilities. The target is to have a total of 3 000 fast chargers (FCs) installed by 2030, so as to vigorously promote green transport. The Government also proposed to inject $100 million for launching a new round of the Programme to expedite green transformation of Hong Kong-owned factories[1] in Hong Kong and the Guangdong Province and dovetail with the country's efforts in promoting high-quality development.

3. Following the release of the Policy Address, the Environment and Ecology Bureau (EEB) outlined the Scheme and the new round of the Programme at the meeting of the Panel on Environmental Affairs on 24 October 2024. The implementation details of the two plans are as follows.

The Scheme

4. Green transport is vital to Hong Kong in achieving carbon neutrality before 2050. Since the announcement of *the Hong Kong Roadmap on Popularisation of Electric Vehicles* in March 2021, the Government has been actively

[1] A Hong Kong business registered in Hong Kong under the Business Registration Ordinance (Cap.310) with factories located in Hong Kong and the Guangdong Province.

implementing various policies and measures to promote green transformation of vehicles. Subsequently, the Government also announced *the Green Transformation Roadmap of Public Buses and Taxis in December 2024* (the Green Transformation Roadmap), striving to promote electrification of public transport.

5. The number of electric vehicles (EVs) has increased significantly in recent years, from about 14 000 in 2019 to about 110 000 in end-2024, about eight times that of five years ago, accounting for about 12% of all vehicles. The Government has to ensure sufficient and reasonably accessible charging facilities to meet the charging needs of different types of EVs in the future. In addition, the Government is committed to enhancing the convenience for EV users, strengthening Hong Kong's image as a new energy green city and encouraging more people to switch to EVs. At present, there are over 10 400 public chargers provided by public and private sectors across the territory, of which only about 1 700 are quick or fast chargers. There is a need to meet the charging demand driven by the soaring number of EVs, accounting in particular the 3 000 electric taxis (e-taxis) to be introduced by end-2027 and the expected further growth in the number of EVs in the future.

6. Land is scarce in Hong Kong. The future public charging network should be equipped with adequate number of FCs (chargers with a rated power output of 100 kilowatts or above) to support electric commercial vehicles like e-taxis and electric private vehicles with no private parking spaces. The Government has been adopting a multi-pronged approach to expand the charging network. For example, two vacant petrol filling station (PFS) sites were granted in June and July 2024 respectively for converting into fast charging stations. It is expected that over 20 FCs will be provided in 2026. We are also promoting the retrofitting of charging facilities in the existing PFSs, and expect that a total of approximate 100 FCs will be provided in the existing PFSs in 2025.

7. As stated in the Green Transformation Roadmap, one of the important directions for enhancing charging infrastructure is to expedite the participation of the private sector in the provision of public charging facilities, so as to leverage the market force to establish a business model applicable to the market.

The Proposal

8. We propose to roll out the $300 million Scheme to provide incentives for the market to retrofit fast charging facilities. A cumulative total of 3 000 extra FCs will be installed by 2030 to provide support for about 160 000 EVs and further expand the charging infrastructure to meet the charging demand.

Application eligibility

9. We propose that all local commercial establishments with a track record[2] of providing fast charging services be eligible to apply. Eligible installation locations has to be parking/charging spaces that can be visited and used by the public for at least 12 hours daily (e.g. shopping malls, industrial/commercial buildings and short-term tenancy sites). Applicants may apply for multiple sites in each application for a total of at least five FCs (relaxation on the number of FCs may be considered in the future).

Subsidy level

10. The proposed subsidy for each newly installed FC is $100,000, subject to a ceiling of $20 million per applicant (i.e. a maximum of 200 FCs). The applicants are required to make arrangements on their own for land, power supply and installation, and bear the relevant costs.

Scheme requirements

11. Drawing on the experience of the EV-charging at Home Subsidy Scheme, we propose to streamline the application procedures and retain only the necessary verifications to reduce administrative costs and implement the Scheme as soon as possible. Applicants are required to declare and make an undertaking in the application form to meet the following requirements:

- the subsidised FCs must be newly installed;
- the subsidised FCs must be put in operation as soon as possible, and must commence operation within 12 months upon receipt of an acknowledgement notice, otherwise the subsidy will be forfeited;
- the subsidised FCs do not receive any subsidy or grants from other Government bureaux/departments or public sector organisations;
- operate and maintain the service of the subsidised FCs for at least 2 years, otherwise the subsidy must be refunded to the Government in full;

[2] Providing at least 5 FCs in Hong Kong in the past 2 years, or at least 20 FCs in places outside Hong Kong, with proof.

- ➢provide the Environmental Protection Department (EPD) and other online platforms with information on charging, relevant fees and real-time availability;

- ➢offer electronic payment option(s);

- ➢applicants are encouraged to penalise users who occupy a charging space after completion of a charging session (penalty level must be set out in the application); and

- ➢purchase insurance on public liability and FCs.

12. Prior to the commencement of operation, the subsidised organisation is required to submit a compliance report certified by a registered professional engineer registered in the electrical or building services discipline under the Engineers Registration Ordinance (Cap. 409). The content of the report shall include:

- ➢a Work Completion Certificate (Electrical and Mechanical Services Department Form WR1);

- ➢specifications of the FCs and confirmation that the FCs have been installed, tested and commissioned;

- ➢location maps and photos of FCs before and after installation; and

- ➢insurance documents.

<u>Subsidy disbursement</u>

13. We plan to disburse 50% of the subsidy within 6 to 8 weeks after the subsidised organisation has fulfilled all the requirements and submitted all the documents and the compliance report, and the remaining 50% after verifying that the FCs have been in operation for 6 months.

Commencement schedule

14. In drawing up the details of the Scheme, we have consulted the relevant trades[3]. They welcomed the Scheme and hoped that it could be rolled out as soon as possible. We expect to start accepting applications in the middle of this year. Subsidies will be granted on a first-come-first-served basis. The Government has absolute discretion to accept or reject any applications. We will keep in view the responses and opinions of the trades and, if necessary, make timely adjustments to refine the arrangements of the Scheme in order to reach the target of 3 000 FCs.

Financial and Civil Service Implications

15. The EEB will extend three time-limited non-directorate posts to implement the Scheme. The approved commitment for the proposed non-recurrent expenditure item is $300 million, with the actual cashflow subject to the number of applications and the timeline for completion of FCs. We estimate that the annual cashflow required to be as follows:

Year	**$ Million**
2025-2026	20
2026-2027	50
2027-2028	100
2028-2029	100
2029-2030	30
Total	**300**

[3] Including Hong Kong E-Vehicles Business General Association Limited, the GBA Carbon Neutrality Association and the relevant trades such as charging service providers, power companies, vehicle suppliers / agents, etc.

New Round of the Programme

16. The EPD launched the Programme in collaboration with the then Economic and Information Commission of Guangdong Province (now the Department of Industry and Information Technology of Guangdong Province) in 2008. Through funding support and technology promotion activities, the Programme facilitates and encourages Hong Kong-owned factories in Hong Kong and Guangdong Province to adopt cleaner production technologies and practices with a view to reducing emissions of pollutants, thereby improving quality of the environment in the region. The Programme has been extended for three rounds so far. The current round of the Programme commenced in June 2020 and will end by March 2025, relevant details are given at **Annex 1**.

17. The Programme has achieved remarkable results in improving the environmental quality. Since launch of the Programme in 2008 until end-2024, over 4 200 projects has been approved and contributed to a total reduction of air pollutant emissions by about 41 000 tonnes, carbon dioxide emissions by 1.77 million tonnes, effluent discharge by 19 million tonnes and saving of energy by about 18 000 tera-joules.

The Proposal

18. Transforming and upgrading traditional industries through green technologies to achieve green development and green transformation is one of the important missions in deepening reform of ecological civilisation system. It is also in line with the important direction by the Third Plenary Session of the 20th Central Committee of the Communist Party of China, which proposed accelerating the comprehensive green transformation of economic and social development. Making reference to the successful experience of the previous rounds of the Programme, to further deepen the cooperation between Hong Kong and Guangdong in jointly promoting comprehensive green transformation, the Government proposes to inject $100 million to launch a new round of the Programme to support Hong Kong-owned factories in adopting new cleaner production technologies accelerating upgrade of traditional industries and operation practices with a view to achieving energy saving, emission reduction as well as reduction in consumption and carbon emissions, thereby improving the

environment in the region.

19. In view of the above considerations, the new round of the Programme will focus on new cleaner production technologies. We will provide funding support to Hong Kong-owned factories to carry out new cleaner production technology projects with a view to encouraging them to change their usual practices of operation and try out more new technologies for upgrading their traditional industries and achieving green transformation.

20. We will particularly encourage and promote the adoption of those technologies with local participation in research and development. A higher funding ceiling will incentivize Hong Kong-owned factories in adopting the new cleaner production technologies developed by Hong Kong or jointly by Hong Kong and Guangdong organisations and provide a demonstration platform for practical application of these technologies, which would be conducive to these technologies in entering the Mainland market.

21. We propose the Government funding support for each New Cleaner Production Technology Project (NCPTP) to be capped at $650,000. If the project for application involves adoption of technologies developed by Hong Kong or jointly by Hong Kong and Guangdong organisations, the Government funding ceiling for the project will be increased to $750,000 to provide greater incentive for Hong Kong-owned factories to adopt these technologies. The project cost will be equally shared between participating Hong Kong-owned factories and the Government. In other words, the participating Hong Kong-owned factories will bear 50% of the project cost and another 50% to be funded by the Government, subject to the funding ceilings capped at $650,000 or $750,000 accordingly. In order to allow more Hong Kong-owned factories to be benefited from the new round of the Programme, we propose that for each factory, only one application will be approved for the same technology and the total number of approved applications will not be more than three. In addition, in order to try out more different new cleaner production technologies, for each new technology, we propose a maximum of five applications be approved. We expect to fund approximately 120 – 140 projects in the new round of the Programme. The funding ceiling and related application approval limits for NCPTP are listed below:

Funding ceiling for NCPTP	$650,000 or $750,000 (if adoption of technologies developed by Hong Kong or jointly by Hong Kong and Guangdong organisations)	
For each factory	Maximum number of applications to be approved	3
	Maximum number of application to be approved for the same technology	1
For each new technology	Maximum number of applications to be approved	5

22. The technologies under the proposed NCPTP cover areas of air pollutant emission reduction, energy saving, effluent reduction and control, as well as solid waste reduction. Some examples are shown at **Annex 2**.

23. We will carry out promotion and publicity activities for the Programme. These activities include sharing of new cleaner production technologies applicable to Hong Kong-owned factories and the relevant experiences. We will also liaise with relevant Hong Kong green technology research, consultancy service companies as well as the factories suitable for adoption of the technologies so as to promote the application of these technologies in the industry.

Implementation and Monitoring

24. The Hong Kong Productivity Council (Hong KongPC) has been the implementation agent for the Programme since its launch in 2008 and has been facilitating smooth implementation of each round of the Programme. In view of the required professional knowledge possessed by Hong KongPC, its solid experience in implementing different funding schemes, and the wide connection network with trade and industrial associations, we will continue to engage Hong KongPC as the implementation agent for the new round of the Programme. Hong KongPC will be responsible for receiving and vetting applications, monitoring progress of approved projects, drawing up annual implementation plan, as well as planning and organising promotion and publicity activities, etc.

25. In addition, the Government will follow the current practice to oversee the implementation of the Programme through a Project Management Committee (PMC)[4]. The PMC will be responsible for drawing up guidelines and selection criteria for applications; vetting funding applications; monitoring the implementation of approved projects; and reviewing and monitoring the overall progress of the Programme, etc. Hong KongPC will submit regular progress reports to the PMC. The Government will continue to submit progress report to this Panel on an annual basis.

Timing for Implementation

26. In planning for the new round of the Programme, we had consulted the industries[5] and they welcomed the extension of the Programme and the above proposal. We target to commence the new round of the Programme in the second quarter of 2025 and expect to receive applications till 30 June 2027.

Financial and Civil Service Implications

27. The total Government commitment required for the new round of the Programme is a non-recurrent expenditure of $100 million. The cost breakdown is provided at **Annex 3**. Among the $100 million, EPD will allocate about $13 million to the implementation agent for the expenses in implementing the Programme, including management of the Programme, administrative support, project monitoring, organisation of promotion and publicity activities, etc. The expenditure for funding of NCPTP will be about $87 million.

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[4] The PMC is chaired by the Under Secretary for the Environment and Ecology and its members comprise representatives from four major chambers of commerce, namely, the Chinese General Chamber of Commerce, the Chinese Manufacturers' Association of Hong Kong, the Federation of Hong Kong Industries and the Hong Kong General Chamber of Commerce, and an independent expert/academic. Relevant departments including the Trade and Industry Department and Innovation and Technology Commission will join as co-opt members.

[5] Include representatives from the four major chambers of commerce (i.e. the Chinese General Chamber of Commerce, the Chinese Manufacturers' Association of Hong Kong, the Federation of Hong Kong Industries and the Hong Kong General Chamber of Commerce), Hong Kong-owned factories located in Hong Kong and Guangdong, trade and industrial associations of manufacturing industry, environmental service providers, etc.

28. The amount of approved funding will be disbursed to participating factory after the completion of the approved project in accordance with the approval requirements. Based on past experience, approved projects would generally require about one year to complete the relevant installation and then commence its operation. We estimate that the cash flow of the Government allocation of $100 million is as follows:

Year	**$ Million**
2025-2026	5
2026-2027	45
2027-2028	45
2028-2029	5
Total	**100**

29. EPD will continue to render support to the new round of the Programme with existing manpower.

Advice Sought

30. Members are invited to note the content of the two plans above and offer views. If supported by Members, funding approval will be sought in accordance with the prevailing mechanism, so as to commence relevant works as planned.

Environment and Ecology Bureau
Environmental Protection Department
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Annex 1

Overview of the Current Round of the Cleaner Production Partnership Programme

The Cleaner Production Partnership Programme (the Programme) aims to encourage and facilitate Hong Kong-owned factories to adopt cleaner production technologies and practices to achieve reduction of air pollutant emissions, energy saving, effluent reduction and control, and solid waste reduction for improving the regional environment. The Programme targets eight industry sectors, i.e. textiles, non-metallic mineral products, metal and metal products, food and beverage, chemical products, printing and publishing, paper and paper products, and furniture.

Key Initiatives of the Current Round of the Programme

2. The current round of the Programme commenced on 15 June 2020 and will end by 31 March 2025. The key initiatives include –

(a) *On-site Improvement Assessment (AP):* to assist Hong Kong-owned factories in identifying and analysing the problems they face and propose practical improvement solutions. The Government provides funding support to 50% of the assessment cost, subject to a ceiling of $45,000. As of end November 2024, the Programme has funded 552 AP;

(b) *Demonstration Project (DP)*: to encourage participating Hong Kong-owned factories to adopt cleaner production technologies and share the experience gained in DP with their counterparts. There are two types of DPs in the current round of the Programme, namely, DP(I) and DP(II).

(i) DP(I): to promote the wider adoption of proven cleaner production technologies by Hong Kong-owned factories through funding support. The Government provides funding support to

50% of the project cost, subject to a ceiling of $450,000. As of end November 2024, the Programme has funded 248 DP(I);

(ii) DP(II): to support Hong Kong-owned factories in research and innovation in cleaner production technologies through funding support. The Government provides funding support to 50% of the project cost, subject to a ceiling of $650,000. As of November 2024, the Programme has funded 148 DP(II); and

(c) *Organisation Support Initiative (OSI):* to support the relevant trade and industrial associations and professional organisations of Hong Kong that are non-profit-making to carry out trade-specific promotion and publicity activities. The Government provides funding support of up to 90% of the project cost and the applicant has to contribute at least 10% of the cost. As of end November 2024, the Programme has funded 24 promotion and publicity activities.

Annex 2

Cleaner Production Partnership Programme
Cleaner Production Technologies Covered by New Cleaner Production Technology Project

The new cleaner production technologies funded by the new round of Programme include technologies in the areas of air pollutant emission reduction, energy saving, effluent reduction and control, as well as solid waste reduction. Some examples are as follows:

(1) Air pollutant emissions reduction technology

(i) Adoption of Permeable Membrane Concentration, Resin Adsorption and Steam Desorption System in pharmaceutical factories can reduce the emission of volatile organic compounds (VOCs) generated during the pharmaceutical production process.

(ii) Adoption of Exhaust Treatment System with Zeolite Rotor Concentrator and Catalytic Oxidation Technologies in printed circuit board factory can reduce the emission of VOCs generated during the printing process.

(2) Energy saving technology

(i) Adoption of Energy Efficient Infrared Heating System in metal products factories can reduce heat loss during the process, thereby improving energy efficiency and energy saving.

(ii) Adoption of Air Jet Loom with Variable Speed Drive Technology in textile factories to control the operation of air jet looms in the weaving process can reduce electricity consumption.

(3) Effluent reduction and control technology

(i) Adoption of Low-temperature Evaporator in metal products factories to concentrate the liquid in the effluent can reduce water consumption and effluent discharge.

(ii) Adoption of Inline Colorimeter in textile factories to control the water amount for replenishment by comparing the colour intensity of the controller and output signal, which can reduce water consumption.

(4) Solid waste reduction technology

(i) Adoption of Digital Cutting Machine in sea sponge product factories to cut sea sponge can reduce raw material wastage, and hence reduce solid waste generation.

(ii) Adoption of Dual-rotor Spiral Slitting Machine in printing factories to precisely cut the raw materials, thereby reducing the generation of solid waste.

Annex 3

Estimated Cost Breakdown for the New Round of the Cleaner Production Partnership Programme

Category	Government Allocation ($ million)	Contributions by Participating Factories ($ million)	Total ($ million)
1. Programme management (including implementation of the Programme, administrative support, monitoring of approved projects, organisation of promotion and publicity activities, etc.)	13	0	13
2. New Cleaner Production Technology Project Note	87	87	174
Total	**100**	**87**	**187**

Note: The project cost will be equally shared between participating Hong Kong-owned factories and the Government, i.e the participating Hong Kong-owned factories will bear 50% of the project cost and another 50% will be funded by the Government, capped at $650,000 or $750,000 accordingly.