

LCQ14: Development of green technology

Following is a question by Dr the Hon Tan Yueheng and a written reply by the Secretary for Environment and Ecology, Mr Tse Chin-wan, in the Legislative Council today (June 21):

Question:

There are views pointing out that the Government is committed to consolidating and enhancing Hong Kong's status as an international financial centre, vigorously developing green finance, developing Hong Kong into an innovation and technology (I&T) hub, and increasing the weight of I&T industries in the industry structure of the economy, with the green technology industry having huge development potential. In this connection, will the Government inform this Council:

- (1) whether it has assessed which industries in the green technology industry domain are those in which Hong Kong has leading advantages, and which industries would feature in the next stage of development;
- (2) of the specific measures in place to support the development of green technology on the financial front; and
- (3) as there are views that the Government should build an ecosystem to promote the development of green technology through higher education institutions and scientific research institutes as technology providers, the Hong Kong Science Park as the main incubator for green technology enterprises, large enterprises in Hong Kong as users of green technology, and the Mainland cities of the Guangdong-Hong Kong-Macao Greater Bay Area as important partners in the development of green technology in Hong Kong, of the Government's measures and planning in this regard?

Reply:

President,

Promoting green economy for sustainable development can help Hong Kong develop into a green and liveable city and achieve the targets of reducing total carbon emissions by half from the 2005 level before 2035 in order to attain the goal of carbon neutrality before 2050 by implementing deep decarbonisation. Developing a green economy can also support the development of green finance and technology, promote circular economy and re-industrialisation, and create new investment and job opportunities in related industries, such as the application of new energy, energy conservation, electric vehicles and new energy transport. Having consulted the Innovation, Technology and Industry Bureau (ITIB) and the Financial Services and the Treasury Bureau, the reply to the question is as follows:

- (1) The Government promulgated the Hong Kong Innovation and Technology Development Blueprint (I&T Blueprint) in December 2022, focusing on the

development of technology industries with a competitive edge and of strategic significance to develop in Hong Kong, including the new energy technology industry. The I&T Blueprint also indicated that new energy technology is not only one of the major innovative areas in the new age, it is also a strategic emerging industry put forth in the 14th Five-Year Plan. Advanced new energy technology industries help combat climate change and take forward strategies to achieve the targets of carbon neutrality, so as to promote the development of green industries. The Government is actively exploring the application of new energy in transport and electricity generation to introduce them for testing in Hong Kong when the technologies become relatively mature.

(2) The Government has implemented a number of measures to build a green technology ecosystem. On the provision of funding support for green technology, various funding schemes that support research and development (R&D) under the Innovation and Technology Fund administered by the Innovation and Technology Commission (ITC) have funded about 130 R&D projects related to green technology so far, with a total funding of about \$400 million. The Hong Kong Science and Technology Parks Corporation (HKSTPC) and Cyberport have also set up the Corporate Venture Fund and the Cyberport Macro Fund respectively to co-invest with angel investors or venture capital funds in start-ups in the Hong Kong Science Park and Cyberport on a matching basis, from which green technology can also benefit. In addition, the Green Tech Fund (GTF) administered by the Environment and Ecology Bureau (EEB) provides better and more focused funding support to R&D projects that can help Hong Kong decarbonise and enhance environmental protection. A total of HK\$400 million has been injected into the fund to support projects in priority areas such as net-zero electricity generation, energy saving and green buildings, green transport and waste reduction. The GTF has approved 22 projects from local universities, designated research institutes and private enterprises, involving a total funding of about \$100 million. These projects cover a wide range of topics, including technologies for the cells, storage and generation of hydrogen fuel; manufacturing and application of biochar-enhanced construction materials; and air cleaning system for reducing roadside air pollution.

To promote green transport, the Government has injected a total of \$1.1 billion into New Energy Transport (NET) Fund (previously named as Pilot Green Transport Fund) since 2011 to subsidise the transport trade and charitable/non-profit-making organisations to conduct trials and promote the wider use of innovative green transport technologies. A total of 300 trial projects have been approved under the NET Fund, including various types of electric commercial vehicles and vessels, with a total subsidy of about \$254 million. Apart from "Applications for Trial", a new category "Applications for Use" has been created under the NET Fund to subsidise the trade to directly procure technologies that have been proven to be relatively mature and suitable for local adoption. In addition, a new category has been created under the NET Fund for trial projects on electric taxi charging mode to support the taxi trade to identify the charging options that are most suitable for their operation, with each project's subsidy capped at \$20 million. \$200 million has also been earmarked under the NET Fund for subsidising the trial of hydrogen fuel cell double-deckers and heavy

vehicles. The Government has also set aside \$350 million to provide subsidies to four in-harbour ferry operators for the construction and trials of electric ferries and the associated charging facilities, with a view to testing the technical and commercial viability of adopting electric ferries in Hong Kong. The trials are expected to commence in 2024.

To promote more green projects and corporates (including green technology projects and related corporates) to use the platform in Hong Kong for raising funds, we launched the Green and Sustainable Finance Grant Scheme in 2021 to provide subsidy for eligible bond issuers and loan borrowers to cover their expenses on bond issuance and external review services. As at end May 2023, close to \$180 million have been granted to about 250 green and sustainable debt instruments issued in Hong Kong, involving a total underlying debt issuance of over HK\$600 billion (about US\$80 billion).

In respect of capacity building, a number of local tertiary institutions have been offering undergraduate and postgraduate programmes related to environmental protection to cater for the demand for environmental and green talents in Hong Kong. To help young people seize the career opportunities brought about by the low-carbon transformation, the EEB and the Environmental Protection Department (EPD) have been organising summer internship and mentorship programmes for years. The Graduates Subsidy Programme has also been launched to subsidise private companies and eligible organisations to employ fresh graduates to work in areas related to environmental protection. Moreover, the EPD collaborates with various professional institutions and organisations to provide engineering graduates with internship and training opportunities in environmental engineering. Besides, professional training courses on environmental protection are offered through the GreenPro Training Programme. The ITC has also launched the Reindustrialisation and Technology Training Programme that aims to subsidise local enterprises on a matching basis to train their staff in advanced technologies. Subsidised enterprises came from different industries, many of which are small and medium enterprises. Many subsidised programmes are relevant to environmental protection and sustainable development.

(3) The I&T Blueprint set out four broad development directions that will lead Hong Kong towards the vision of an international innovation and technology (I&T) centre. One of the development directions is to enhance the I&T ecosystem and promote "new industrialisation" in Hong Kong. The ITIB has been enhancing the I&T ecosystem from different aspects, including infrastructure, funding, talent and scientific research, to promote Hong Kong's overall I&T development, including green technology and other technology areas. For example, the HKSTPC and Cyberport provide comprehensive assistance for tech start-ups (including those engaged in green technology) through incubation programmes, including R&D support, mentor coaching and investment matching, with a view to assisting them to transform their R&D outcomes for entry into the market and expand business. Furthermore, green tech enterprises can also benefit from the Technology Talent Admission Scheme, which provides a fast-track arrangement for admitting overseas and Mainland technology talents to undertake R&D work in Hong Kong.

Apart from supporting local I&T development, the Government also explores growth opportunities through co-operation with neighbouring regions, including strengthening exchanges and collaboration with cities in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) in building low-carbon communities, developing decarbonisation technologies, promoting low-carbon products and nurturing talent. Through the Cleaner Production Partnership Programme launched in collaboration with the Department of Industry and Information Technology of Guangdong Province, the EEB will continue to encourage and subsidise Hong Kong-owned factories in Hong Kong and Guangdong Province to adopt cleaner production technologies and practices, for energy saving and air pollutant emissions reduction, and reduction of waste and wastewater generated from industrial processes, thereby improving the regional environmental quality. Hong Kong will also explore the feasibility of developing new offshore projects and introducing new energy for electricity generation.

To actively seize the opportunities brought by our country's dual carbon strategies, the Government will accelerate the development of Hong Kong into an international centre for green technology and finance and strives to build a green technology ecosystem. Specifically, we will seek to attract top-notch enterprises or start-ups to set up their business, encourage efficient interaction among industry, academia and research sectors to commercialise R&D outcomes, and boost the demand for green technology through policy support. The Government will also promote green finance application and innovation to facilitate green projects to obtain capital more conveniently and flexibly through financial innovations apart from traditional financing channel. Our work will include promoting green certification and alignment with international standards, training for talents, and enhancing the exchange and co-operation with cities in the GBA and international markets.

To implement the above plans, the Government will set up a Green Technology and Finance Development Committee, inviting industry representatives from green technology, green finance and green standard certification, etc. to assist in the formulation of an action agenda for promoting the development of Hong Kong into an international green technology and finance centre. The Government will organise an International GreenTech Week at the end of this year to pool together representatives, enterprises and investors from the green technology industries around the world.

Government posts notices of land resumption and acquisition for public housing developments at Cheung Muk Tau

The Lands Department today (June 21) posted notices in accordance with

section 4 of the Lands Resumption Ordinance (Chapter 124), section 14 of the Roads (Works, Use and Compensation) Ordinance (Chapter 370) and section 4 of the Land Acquisition (Possessory Title) Ordinance (Chapter 130) for the resumption and acquisition of land for implementation of public housing developments at Cheung Muk Tau.

A total of 13 private lots with an area of about 2 759 square metres will be resumed, and the land being occupied by one grave with an area of about 13 sq m will be acquired. The said land will revert to or vest in the Government upon the expiry of a period of three months from the date of affixing the notices (i.e. September 22).

The Government will closely liaise with the affected parties and handle compensation matters.

The public housing developments at Cheung Muk Tau will provide about 3 480 flats upon completion. The developments are expected to be completed in phases from 2029-30.

[LCQ9: Fares for cross-boundary journeys on MTR East Rail Line](#)

Following is a question by the Hon Chan Yuet-ming and a written reply by the Secretary for Transport and Logistics, Mr Lam Sai-hung, in the Legislative Council today (June 21):

Question:

It is learnt that the Lo Wu Control Point and the Lok Ma Chau Spur Line Control Point are the two land boundary control points with the largest numbers of inbound and outbound passenger trips in Hong Kong. Compared with the fares for cross-boundary journeys on the MTR East Rail Line (ERL) (i.e. for travelling between Sheung Shui Station and Lo Wu Station/Lok Ma Chau Station), the fares for the same journeys on other public transport modes (e.g. franchised buses or public light buses) are lower. In this connection, will the Government inform this Council:

- (1) whether it knows the justifications for the fare structure adopted for cross-boundary journeys on ERL;
- (2) whether it knows the fare revenue of the MTR Corporation Limited in respect of cross-boundary journeys on ERL in each of the past 10 years (set out in a table);
- (3) whether it will review the fare structure as well as the reasonableness of the fares for cross-boundary journeys on ERL in the light of the

initiative for the joint development of the Shenzhen-Hong Kong Boundary Control Points Economic Belt by Hong Kong and Shenzhen to foster the flow of people; if so, of the details; if not, the reasons for that; and

(4) whether it will consider introducing more policies or measures which will facilitate cross-boundary transport for people who need to commute between Hong Kong and Shenzhen every day, such as cross-boundary students and cross-boundary workers, so as to reduce their travelling expenses; if so, of the details; if not, the reasons for that?

Reply:

President,

My reply to the question raised by Hon Chan Yuet-ming is as follows:

(1) and (3) Generally speaking, fares of the heavy rail system of the MTR Corporation Limited (MTRCL) are basically determined according to distance, taking into account other factors such as market competitiveness, trip nature (e.g. whether cross-harbour or cross-boundary journeys are involved) and the existing overall fare structure. Fares of new railway lines commissioned in recent years, such as the Kwun Tong Line Extension, South Island Line, the full Tuen Ma Line and the East Rail Line (ERL) cross-harbour extension, are determined in accordance with this principle.

The ERL commissioned as early as 1910, providing domestic services between Kowloon and the New Territories as well as carrying passengers to Lo Wu for crossing the boundary to Shenzhen. Since commencing operation in 2007, the Lok Ma Chau Spur Line has provided another boundary crossing option for passengers. With the commissioning of the ERL cross-harbour extension on May 15, 2022, the ERL becomes the fourth cross-harbour railway line in Hong Kong. It directly connects Hong Kong Island with Lo Wu and Lok Ma Chau without interchanging while linking five other railway lines with its four interchange stations, thereby facilitating the travelling of both local and cross-boundary passengers.

Unlike other railway lines, the ERL is a railway line combining domestic and cross-boundary services. Its fares have been determined according to its own fare structure, which has its historical factors and special circumstances, before the rail merger in 2007. Specifically, target passengers of cross-boundary journeys via Lo Wu Station and Lok Ma Chau Station are different from those of domestic journeys. Their fares, to a certain extent, are also subsidising those of the latter. Therefore, the fares of the ERL should not be compared directly with those of the other railway lines under the heavy rail system.

(2) The fare revenues of the MTRCL in respect of the cross-boundary services of the ERL in the past decade are tabulated below.

| Year | Fare revenue from cross-boundary services of the ERL (HK\$ million) |
|------|---|
|------|---|

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|------|-------|
| 2013 | 2,923 |
| 2014 | 3,049 |
| 2015 | 3,172 |
| 2016 | 3,252 |
| 2017 | 3,277 |
| 2018 | 3,472 |
| 2019 | 3,164 |
| 2020 | 516 |
| 2021 | 5 |
| 2022 | 4 |

(4) Cross-boundary transport has been a key component of the transport and traffic network promoting connectivity between Hong Kong and the Mainland, as well as facilitating the development of the Guangdong-Hong Kong-Macao Greater Bay Area. The Government has been encouraging public transport operators to suitably respond to public aspirations by offering more concessions upon balancing different considerations, including the overall socio-economic environment, market situations, their operating and financial conditions, and passenger demand.

Elderly and child passengers taking the ERL for crossing the boundary can enjoy the same concessions of about 50 per cent fare discounts as those for domestic journeys. The MTRCL also provides various promotional offers from time to time in light of market situations. For example, between February 1 to July 31 this year, Fare Saver discounts of \$6 are offered for passengers taking same-day round trips between Hong Kong and Shenzhen via Lok Ma Chau Station with Adult Octopus cards and JoyYou Cards (for those aged 60-64), or \$3 for only taking a one-way southbound trip to Hong Kong, by tapping their Octopus cards on the MTR Fare Saver (Note).

Other public transport operators like franchised bus companies have also offered different types of fare concessions on their routes, including bus routes serving boundary control points, to reduce travel expenses of passengers. Such concessions include section fares, bus-bus interchange concessions, monthly ticket concessions, return trip concessions and half-fare concessions for children.

Besides, in order to relieve the fare burden of commuters who travel on local public transport services for daily commuting and whose public transport expenses are relatively high, the Government introduced the Public Transport Fare Subsidy Scheme (the Scheme) in 2019. It covers major public transport services operating in Hong Kong, including the ERL and bus routes serving boundary control points within Hong Kong. According to the existing temporary special measures of the Scheme, which have been extended until late October this year, if the commuters' eligible monthly public transport expenses exceed \$200, the Government will provide a subsidy amounting to one-third of the part in excess of \$200, subject to a maximum of \$500 per month.

Note: Passengers who travel to Shenzhen via Lok Ma Chau Station and return to Hong Kong on the same day taking Shenzhen Metro Line 4 may enjoy a \$6 discount when interchanging via Lok Ma Chau station to Hong Kong by tapping the MTR Fare Saver with the same Octopus cards within the paid area at Futian Checkpoint station. Those who only take a one-way southbound trip to Hong Kong may also enjoy a \$3 discount by tapping their Octopus cards on the MTR Fare Saver.

Red flag hoisted at Pui O Beach

Attention TV/radio announcers:

Please broadcast the following as soon as possible:

Here is an item of interest to swimmers.

The Leisure and Cultural Services Department announced today (June 21) that due to big waves, the red flag has been hoisted at Pui O Beach in Islands District. Beachgoers are advised not to swim at the beach.

Special traffic arrangements for Tuen Ng Festival

Police will implement special traffic arrangements in various districts for two consecutive days (June 21 and 22) to facilitate the public to watch dragon boat races and to ensure smooth vehicular traffic movement and pedestrian safety.

Southern District

A. Road closure

Stanley Link Road and Hoi Fung Path will be closed from 6am to 7pm on June 22, except for vehicles of local residents.

Stanley New Street and Stanley Market Road will be closed from 7am to 6pm on June 22, except for vehicles of local residents and vehicles with permits.

Stanley Main Street will be closed from 7am to 11pm on June 22 and

designated as pedestrian precinct.

B. Suspension of parking spaces

The following parking spaces and car park will be suspended from 6am on June 21 to 7pm on June 22:

- All parking spaces on Stanley Link Road; and
- The public car park near the refuse collection point on Stanley Beach Road.

The following parking spaces will be suspended from 6am to 7pm on June 22:

- Eleven metered parking spaces on Island Road opposite to the Hong Kong Golf Club;
- Four metered parking spaces on Island Road opposite to the Deep Water Bay Golf Course;
- Sixteen metered parking spaces on Island Road near the Deep Water Bay Beach barbecue site; and
- All metered motorcycle parking spaces on Island Road.

Sha Tin

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A. Road closure

Sand Martin Bridge (i.e. Sha Tin Rural Committee Road between Yuen Wo Road and Tai Chung Kiu Road) will be closed from 7.30am to 2pm on June 22. During the above road closure, motorists crossing Shing Mun River are advised to travel via Lion Bridge (i.e. Lion Rock Tunnel Road) or Banyan Bridge (i.e. Fo Tan Road between Yuen Wo Road and Tai Chung Kiu Road).

B. Closure of cycling track

The cycling track along the northern riverside of Shing Mun River Channel between Yuen Wo Road Sports Centre and Sha Tin Sports Ground will be closed from 7.30am to 2pm on June 22.

Tai Po

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A. Road closure

The following roads will be closed from 6pm on June 21 to 2pm on June 22, except for taxis and permitted vehicles:

- Dai King Street;
- Dai Hei Street; and
- Dai Kwai Street south of Dai Cheong Street.

B. Closure of cycling track

The cycling track inside Tai Po Waterfront Park near Tai Po Industrial

Estate will be closed from 7am to 2pm on June 22.

C. Suspension of parking spaces

Dai Shing Street car park and the on-street parking spaces on Dai King Street, Dai Hei Street and Dai Kwai Street south of Dai Cheong Street will be suspended from 6pm on June 21 to 2pm on June 22, except for permitted vehicles.

All vehicles parked illegally may be towed away without prior notice.

Actual implementation of the traffic arrangements will be made depending on traffic and crowd conditions in the areas. Motorists are advised to exercise tolerance and patience and take heed of instructions of the Police on site.