Hong Kong Green Strategy Alliance
香港綠色策略聯盟
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17 September 2019

Mrs Carrie Lam, GBM, GBS
The Chief Executive
Hong Kong SAR Government

Dear Carrie,

Suggestions to prominent environmental issues for the 2019 Policy Address

The Hong Kong Green Strategy Alliance (HKGSA) would like to share our views and comments regarding the prominent environmental issues for the 2019 Policy Address. Our detailed submission is attached as Appendix A.

HKGSA is a non-profit making organization founded in 2012 by a group of professionals and stakeholders who are visionary and wish to undertake the responsibility on the issues of environmental protection and sustainable development. Through active participation, discussions and exchange of views in green issues, projects and technologies etc., members of HKGSA offer our professional opinions and solutions to tackle green issues in Hong Kong and neighbouring region.

Should you need any further information, please feel free to contact me at 9032 3816 (drwklo@gmail.com) or our Honorary Secretary Ir Kenny Wong at 2788 5647 / 9482 3227 (irkennywong@gmail.com).

Yours sincerely,

Ir Dr. Hon LO Wai Kwok, SBS, MH, JP
Chairman, Hong Kong Green Strategy Alliance

c.c. Mr WONG Kam-sing, JP, Secretary for the Environment

Encl.

Recommendations from the Hong Kong Green Strategy Alliance to 2019-2020 Policy Address

The Hong Kong Green Strategy Alliance (HKGSA) proposes the following for the Government's consideration. It is suggested that a meeting with the associations which had provided suggestions on Chief Executive's policy address be arranged to exchange views of both sides for enhancing the mutual understanding.

General

(1) HKGSA holds the view that when formulating the long term strategies and policy related to environmental issues, the Government should refer to the United Nations' Sustainable Development Goals (SDGs) and their relevant targets. We look forward to the actions taken in response to the progress and regular reporting to achieve the SDGs.

(2) The run of unprecedented temperatures in July – which sent records tumbling in Europe, indicated how severely climate change is affecting everyone. HKGSA welcomes that the Council for Sustainable Development is conducting public engagement on "Long-term Decarbonisation Strategy" with a view to drawing up Hong Kong's mid-century long term low GHG emission development strategy for the Government. Carbon emissions in Hong Kong from the power sector account for more than 60% of its total emissions. While the gradual increase use of gas to replace coal for power generation can reduce the carbon footprint in the coming decade, Hong Kong, as a developed city, should pursue efforts to achieve a more audacious carbon reduction targets of limiting to either 1.5 degree C or 1.5 degree C to 2 degree C by sourcing the clean and non-carbon energy (i.e. nuclear/RE) through the regional collaboration. The transmission process should be done in a way to ensure a high level of reliability while the power supply system will need to be a back-up from local generation sources. The transition in the years ahead means an opportunity for Hong Kong to develop the necessary technologies and expertise for Hong Kong to cultivate a low carbon and resilient economy.

(3) With the advanced progress of technologies (such as internet of things, wide application of mobile apps and drones, virtual reality, artificial intelligence, chatbots, etc.), HKGSA previously requested the Government to reform outdated legislations with a view to promoting the development of innovation and

technology, which can help transform Hong Kong into a smart and sustainable city. HKGSA wishes to know the progress of this work. Only when outdated legislations and formulate policies afresh are phased out, the collaborative consumption or sharing of economies such as car sharing service, which aims to decrease waste of both physical materials and resources, can be realized.

(4) To meet the high demand for housing land and improve quality living environment, the Chief Executive has announced the "Lantau Tomorrow" vision in her 2018 Policy Address. HKGSA supports that "Lantau Tomorrow" vision is one of the best solutions. It is believed that the Government will conduct the relevant engineering design and environmental impact assessment stages in a suitable time.

Solid Waste

(5) The waste statistic data showed that the MSW disposal rate per capita has progressively increased from 1.27 kg/capita in 2011 to 1.45 kg/capita in 2017 with a yearly averaged increasing rate of 0.03 kg/capita. The disposal rate per capita in 2017 becomes the record high from 1991 to 2017. The rising trend of the figures is worrying. The relevant measures outlined in the Blueprint have to be revisited and revised as and when necessary.

To meet the ultimate target of 0.8 kg/capita in 2022 as proposed in the abovementioned blueprint seems to be very challenging since there are only three years ahead. There is no doubt that the one of the high priority areas is the early implementation of the quantity-based Municipal Solid Waste (MSW) charging. HKGSA remains the view that charging is an effective tool to accelerate behavioral change. HKGSA's views are as follows:

(i) Bill on MSW charging

HKGSA understands that the Bill is under deliberation in the LegCo. Since Hong Kong is behind other nearby jurisdictions (e.g. Seoul, Taipei) for nearly 20 years in the implementation of quantity based MSW charging, we urge the LegCo to approve the bill as soon as possible so that its implementation can be commenced at the earliest.

Learning from the confusion in the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment on 1 August 2018, HKGSA is of the view that the general public may not be familiar with the MSW charging scheme. Knowing that there are a number of MSW charging

trial projects for various sectors are being carried out or completed for various sectors, HKGSA recommends the Government to arrange more high profile events to share the experience learned, and continue to conduct more trials. Such trial programme should be able to raise citizens' awareness on MSW charging and bring about their earlier behavioural changes before full implementation. It would also help the Government to identify difficulties and be prepared for improvement, which will ensure the success of the MSW charging scheme.

(ii) Recycling

The decision that China does not accept import of 24 categories of solid waste has caused a great impact on the local recycling industry since a tight import quota as well as a high quality requirement would be imposed on "overseas waste" shipped to Mainland. In fact, majority of the recyclables collected in Hong Kong is imported into Mainland China for recycling. The Government has to consider the following approaches on how to support local recycling industry and sustain their business in Hong Kong.

The recyclables exported from Hong Kong to Mainland China is subject to the tight import restriction from overseas regions as well as a high quality requirement (e.g. PET flakes and PET/ HDPE pellets), which puts Hong Kong into a disadvantaged position compared to overseas big waste exporters. To help local recyclers to face this challenge, in addition to the funding support by the current scope of Recycling Fund to help upgrade the operation of the local recycling industry to meet the high quality standard of the imported recyclables, HKGSA is pleased to learn that the Government has devoted more resources to deal with the waste problems more proactively by expanding the scope of the Recycling Fund to allow a higher funding cap (up to $15M per enterprise) so as to attract high end recycling operation, subsidize the rental cost of existing recyclables collection as well as relocation from non-proper site to proper site, etc. While the subsidy for rental cost has been fully implemented with good response from the industry, the raise of funding cap to $15M per enterprise is pending endorsement from LegCo. HKGSA urges the Government to coordinate with LegCo for the endorsement once the LegCo resumes operation. The Government may also consider to further support the Recycling Industry to invest on high end equipment and work with local

recycling industry to process some of the lower valued waste types into products / raw materials by offering a higher percentage of subsidiary. Technology Voucher Scheme is an example that the Government is offering more than 50% of matching fund.

While the Government is striving for reducing waste disposal to the landfill, HKGSA suggests the Government to provide more subsidies/incentives for the waste collection / recycling / handling industries to create a more economic beneficial environment for the recycling business, hence boosting up recycling rate in Hong Kong.

(6) HKGSA strongly supports the implementation of different approaches to tackle the food waste problem in Hong Kong as stated in "A Food Waste & Yard Waste Plan for Hong Kong 2014 – 2022". FoodWise Hong Kong Campaign was formally launched in May 2013 with the target of avoiding about 5 to 10% of food waste by 2017/18. While the Organic Resources Recovery Centre 1 (O.Park 1) was finally opened in 2018 and the funding support from O.Park 2 in Sha Ling was just sought, the Government should accelerate the development of other ORRCs in Shek Kong and other places in Hong Kong. The technologies to be adopted at Siu Ho Wan and Sha Ling should be reviewed according to the market trends and Hong Kong's actual conditions after more experiences are gained. Regarding the other ORRCs as proposed in the plan, HKGSA suggests the Government to conduct the site search and EIA study soonest possible with a view to identifying suitable locations or developing further organic waste treatment facilities, both centralized and decentralized ones, based on geographic location, quality and quantity of organic waste, financial set-up (government-owned, privately-operated, voluntary, or even quasi-), etc. In addition to the "Food Wise Eateries Scheme" operated by the Government, HKGSA also welcomes other schemes, e.g. the FoodSmart Partnership Programme initiated by the Food and Beverage (F&B) Sector to joint hands among related stakeholders and the community in reducing food waste disposal. The Government should also provide support (in terms of resources and technical) to the Food & Beverage Trade to actively conduct food waste minimization, surplus food donation, as well as food waste source separation, collection and recycling.

(7) The shopping behavior of Hong Kong citizens has been shifting to online purchase which leads to an increasing waste problem due to excessive packaging materials and quick disposal of the products. HKGSA previously suggested the Government to prepare a policy framework to tackle the problem and wishes to

know the progress.

(8) We notice that there is a rising trend of some of the retail shops which do not charge on the PSB on non-exempted products. The situation has not been improved from day to day observations. HKGSA previously suggested the Government to enhance the enforcement actions on regulating the free distribution of PSB issue and wishes to know the progress.

(9) It is learnt that Hong Kong people are recycling less than 10 per cent of the plastic bottles they consume. Beverage container-deposit is an economic incentive to drive consumers to return their beverage containers after consumption. While we understand that the Government is conducting an evaluation for the possibility and effectiveness of a PRS scheme on plastic beverage bottles, we would like to know the progress and the timeline of implementation. Also the Government should conduct more trials on the adoption of Reverse Vending Machine (RVM) and various rebate levels for collected plastic bottles in order to gauge the response from the community.

(10) HKGSA previously suggested the Government to reduce the use of plastic products by making reference to what the European Commission recently proposed new restrictions on 10 single-use plastic products most often found on beaches and in seas, including single-use plastic cutlery, straws, and plates, etc. Despite that there are many beach clean-up activities carried out annually, the coastal pollution by floating trash from Pearl River Delta (PRD) region is still worrying, e.g. it was reported that the coastal line from Tung Chung to Tai O (where many tourists love to visit) is full of rubbish. HKSGA previously urged the Government to strengthen the cooperation with the PRD so that appropriate measures would be implemented in the region with a common view to stop illegal dumping into the sea and wishes to know the progress.

(11) ALBA adopts state-of-the art technology to process refrigerators, TVs, computers, washing machines and air conditioners into valuable secondary raw materials. HKGSA suggests the Government to extend its scope to mobile phones. For those electronic wastes which do not fall in the defined categories, we suggest the Government to make more promotion about Community Green Stations which could provide assistance for tackling other e-wastes.

(12) Most of the drinks cartons piling up in Hong Kong's landfills come from one to two major producers. Given that it is comparatively difficult to recycle drinks

cartons, HKGSA urges the Government to consider either a PRS for drink cartons or work with the producers to look for the alternative containers to lessen the burden on landfills.

(13) HKGSA understands from the relevant trades that as per the requirements of Environmental Permits, project proponents are regularly required to submit the hard copies of the EM&A reports. Since the reports contain a lot of information and project proponents need to use a lot of papers, HKGSA previously requested the Government to review the necessity of hardcopies since the soft copy in forms of e-version should also serve the purpose and wishes to know the progress.

Air Quality

(14) HKGSA strongly supports the implementation of a series of holistic approaches through the air quality management system and measures to tackle local air pollution problems arising from roadside, ships and power plants. HKGSA welcomes the good progress of each approach. HKGSA also understands that the Government is conducting the public consultation on review of AQO. It was proposed to tighten the AQOs for sulphur dioxide and fine suspended particulates. While HKGSA supports the proposal, the Government should speed up the legislative process to put it mandatory in the interest of Hong Kong people. Furthermore, the Government should consider the review of AQO along with the long-term decarburization strategy to maximize the co-benefits.

(15) HKGSA is pleased to learn that the pilot program of installing the floating PV solar system at Shek Pik Reservoir and Plover Cove Reservoir are successful, on top of valuable experience learnt from the severe typhoon attacking the system, which have provided some useful reference data for the future implementation of large-scale FPV farms on reservoirs in Hong Kong. The Government is suggested to speed up the implementation process by extending its scale in the reservoirs.

(16) In the CE Policy Address 2018, the Government would consider ceasing the first registration of diesel private cars. HKGSA supports the proposal to improve local air quality. While there is a plan to phase out all diesel and petrol vehicles on the road and replace them with EV and cleaner vehicles using hydrogen as fuel. We suggest that the government work with the relevant business sector and industry to formulate such a roadmap.

(17) It is noted that there are diesel engine-driven barge cranes for loading and unloading at mid-stream sites and public cargo working areas, etc., which are also

polluting. HKGSA suggests extending the overage of the existing Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation to include these polluting cranes in a way that their emissions are under control. To further improve local air quality, HKGSA still holds the view that the Government should provide owners with incentives to replace their engine driven NRMMs with electric powered type, or retrofit the NRMMs with advanced after-treatment systems.

(18) HKGSA is of the view that smart low emission transport and avoidance of congestion are important to provide a healthy and clean Hong Kong. We understand that the Government has studied - the application of the electronic road pricing (ERP) system for years and would frame the pilot scheme for stakeholder consultation, We strongly urges the Government to speed up the process. .

(19) The Government should provide economic incentive to commercial vehicle owners to install energy efficient / emission reduction devices, e.g. automatic engine idle stop system, hybrid electric / pure electric drive system, etc., by setting up a permanent Green Transport Fund, instead of the current Pilot Green Transport Fund. The Government should organize workshops for sharing the successful testing of green innovative transport technologies with the public instead of just the reports.

(20) Electric buses have zero tailpipe emissions and lower operational costs, can help cities address local noise and air quality issues, and reduce greenhouse gas emissions when the grid is clean enough. However, most of 10,000 EVs in Hong Kong are private EVs but not commercial vehicles. The Government should continue to implement more initiatives to facilitate the switching of public / commercial vehicles to electric vehicles. There have already been some 14,000 electric buses on the streets of Shenzhen, making fleet of buses 100% electric. In view that the weather condition between Shenzhen and Hong Kong is quite similar, the Government should learn why they can do it while Hong Kong could not.

(21) It is noted that there is no growth of EV as a result of the revised tax concession on the purchase of EV. On the other hand, the no. of newly registered vehicles continues to increase. This worsens the local air quality in Hong Kong. HKGSA urges the Government to review the tax system so that that the use of EV with consideration of more brand names, could be widely promoted, while at the same time, there is no growth of new vehicles running on the road. To support

wider use of EVs, the Government should boost the installation of more charging stations in both new and existing buildings under public-private partnership. In view of possible wider use of EVs in in long term in Hong Kong, end-of-life EVs and the associated retired components would be a future waste concern. The Government should formulate strategy to tackle the end-of-life EVs and the associated waste, such as tyres and batteries. We suggest the Government to explore possibility to reuse and recycle, and establish large scale recycling plant to facilitate the processing of those components. HKGSA is pleased to note that the Government would explore the use of old EV batteries as an electrical energy storage system for the power grid. HKGSA urges the Government to examine the development strategy for environment-friendly vehicles in Hong Kong, and in response to changes in the market and technology, make timely adjustments to the policy on the promotion of EVs and to examine the relevant provisions of the Buildings Ordinance to mandate the provision of charging facilities.

(22) HKGSA is supportive of the Government's detailed planning or further study to ascertain that ocean going vessels and container ships would use on-shore power supply (OPS) when berthing at Cruises Terminal and Kwai Chung Container Terminal respectively. We are also of the view that the Government should explore the feasibility of application of electric vessels and LNG or CNG vessels on Hong Kong waters.

(23) As evidenced by the attack of the severe typhoon Mangkhut in 2018, Hong Kong still maintained a high reliable electricity supply thanks to local power generation. HKGSA supports diversifying the sources of natural gas supply with the use of floating storage and regasification unit (FSRU) to improve fuel security and to enhance bargaining power in the international market for gas supplies. HKGSA urges the Government to work closely with the power companies to ensure that FSRU could be put in service on time to the benefit of Hong Kong

<u>Climate Change and Energy Efficiency</u>

(24) While HKGSA supports provision of financial incentives in terms of GFA concession for new buildings, we also support the profits tax deduction for any investments in the application of advanced technologies for smarter homes and businesses. The Building Energy Codes and Building Energy Efficiency Ordinance should be further revamped to enhance the energy efficiency standards within the building sector. EMSD has posted Energy Utilisation Index (EUI) for the existing office buildings calculated from energy audit requirements under Buildings Energy Efficiency Ordinance in a way that the public is aware of their

energy saving performance. However, the data may not truly reflect the actual situations since they are either single-tenant office building or multi-tenant office buildings. Some of them even contain shopping mall. HKGSA previously suggested the Government to group them into appropriate categories for the sake of apple to apple comparison and wishes to know the progress.

(25) Hong Kong, as a developed city, should continue to increase the portion of renewable energy (RE) in fuel mix. HKGSA welcomes the implementation of feed in tariff scheme as an incentive under the new Scheme of Control Agreement (SCA). It is encouraging to see that some organizations achieving carbon neutrality would pay higher price than normal tariff to purchase such green power in terms of RE certificates. With the increasing use of PV panels for power generation, HKGSA retained the view that the retired PV panels after the end of their life spans would become another sources of solid waste, HKGSA has previously requested the Government to study how to recycle their useable materials and wishes to know the progress.

(26) Regarding the use of biodiesel, it seems that only one franchised oil company in Kowloon side sells 5% biodiesel blend product for customers seeking to meet their greenhouse gas emission reduction and sustainability goals. HKGSA previously suggested the Government to review with the oil companies and see whether they could sell the biodiesel in the whole territory of Hong Kong including Hong Kong Island. Furthermore, HKGSA supports the wide use of biodiesel made from locally produced waste cooking oil. It is ironic that those biodiesel made from local waste cooking oil is exported to overseas market. The Government should formulate initiatives to support the local biodiesel industry.

Biodiversity Strategy

(27) Given that the conservation of biodiversity is important to the sustainable development of Hong Kong, the Biodiversity Strategy and Action Plan (2016-2021) was formulated to step up biodiversity conservation. HKGSA looks forward to the update of the action plans and their effectiveness. Hong Kong people could make concerted effort to conserve flora and fauna, marine and endangered species.

Fresh Water Supply

(28) In the face of climate change, fresh water would undoubtedly become scarce in the future. Given that there is over reliance on imported water, HKGSA looks

forward to a Water Policy as a driver to ensure the safety, reliability and security of water supply in Hong Kong. It is noted that the Water Supplies Department has formulated guidelines on the implementation of rainwater harvesting and grey water recycling systems for new government buildings. The Government should encourage the developer to adopt it, particularly those with the potential of reducing their fresh water demand for non-potable applications through rainwater harvesting or grey water recycling system installed on-site treatment and recycling facilities.

Marine Water Quality in Hong Kong

(29) In the densely-populated coastal areas that have been developed for many years, the odour nuisance was caused by discharged wastewater of questionable buildings that was not collected by the public sewers network, and wastewater and pollutants entered the water body through the storm drainage system. While HKGSA previously suggested the Government to speed up the proposed work for improving the performance of the stormwater drainage systems such as dry weather flow interceptors in Tusen Wan and West Kowloon with growing populations along their coastal areas, all the discharges including storm drains from the questionable buildings should be connected to the public sewers network to quickly mitigate the odor nuisance and improve water quality in the concerned areas.

Review and Development of Water Quality Objectives (WQO)

(30) Since the water quality situation is directly associated with the WQO which have been adopted for decades, HKGSA understands that review and development of WQO include two stages of public engagement. The first stage on the review methodology has been completed eight years ago in 2010. The second engagement on any proposed changes has not yet been kicked off. Given that review of WQO will certainly protect marine waters of high ecological values, HKGSA previously suggested the Government to speed up the process and wishes to know the progress

Sustainable Development/Environmental Industry

(31) Given the Central Government's widely publicized determination to achieve improvement in environmental quality for the whole nation, there is a great demand for environmental services/ products/ technologies. We also understand that China has gradually released the requirements of working permits in China to facilitate Hong Kong people to work in our mother land. Hence, the

development of a vibrant local environmental industry is definitely contributory to job creation and the economy. In order to facilitate the development of environmental industry, we have previously requested the Government to :

- set up an advisory body to recommend, plan and monitor the environmental industry development;
- establish platform to facilitate the transfer of advanced environmental technologies;
- develop a centre for the independent verification of environmental technologies
- facilitate the build up of brand names for environmental services/products

HKGSA would like to know the progress.

(32) It is the Government's tendering practice to utilize proven technology. However, many of the innovative technologies developed by Hong Kong owned enterprises may not have the chance to be widely used, and thus would be difficult to meet the Government's tender requirement. Innovation is essential for advancing the economy. HKGSA previously recommended the Government to consider adopting innovative environmental technologies/applications as the criteria in evaluating the tender submissions and would like to know the progress.

(33) HKGSA understands that the number of items on the Government procurement list with green specifications stays at 150 items of over 20 product and service categories for years. HKGSA has previously requested the Government to further expand the number of items and consider including Carbon Footprint covering Life Cycle Analysis as one of the criteria in its green procurement policy. HKGSA also previously recommended the Government engineering contracts to use certain percentage of environmental/green materials so as to create sufficient market potential to facilitate the healthy development of local environmental industry. During the tender invitation for the engineering work, the Government is also suggested to invite those companies, which have made reference to ISO 20400 in procurement, to bid. HKGSA wishes to know the progress.

(34) The Belt and Road Initiative is an important strategy for China's external and internal development, involving over sixty countries and emerging economies. There are numerous infrastructure projects in progress, including railway, highway and harbours, etc. Similarly, sustainable development of a city cluster in the Guangdong-Hong Kong-Macau Greater Bay Area is also important to Hong Kong. Hong Kong engineering and environmental industry can provide the

consulting service and be involved in the construction, operation management, meeting the needs of high-end service industry and promoting sustainable development and green lifestyle at the same time. The Government is suggested to work closely with the engineering and environmental industry in adopting the environmental protection standards of the advanced jurisdictions and then refer our expertise to the involved cities and countries.

(35) The Smart City Blueprint for Hong Kong (Blueprint), released in December 2017, has made recommendations for development with a view to transforming Hong Kong into a people-centric smart city which is something about the use of high-tech IT, sensor or apps to achieve the target. Afterwards, there is no much information of the progress, except the implementation of three-year smart lamppost pilot scheme announced in July 2019. With due consideration of public concerns over privacy, HKGSA suggests the Government to quickly find a solution to address public concerns over privacy in a way that the lampposts could incorporate the waste dumping monitors with cameras to facilitate the possible municipal charging scheme in future. All in all, HKGSA previously suggested the Government to advise the public of the progress of the Blueprint and relevant facts and figures from time to time, and wishes to know the progress.

(36) It is believed that new types of skill for developing new technologies for environmental protection and decarbonisation will be required. The Government should closely review the workforce required to make sure that Hong Kong could gain all possible benefits of the economic transformation due to environmental protection and sustainability.

~END~

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