



Hong Kong Green Strategy Alliance

香港綠色策略聯盟

Unit G, 7/F, Century Centre, No. 33-35 Au Pui Wan Street, Fotan, Shatin, N.T., Hong Kong.

15 September 2017

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

Dear *Carrie*,

Suggestions to prominent environmental issues
for the 2018 Policy Address

The Hong Kong Green Strategy Alliance (HKGSA) would like to share our views and comments regarding the prominent environmental issues for the 2018 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.



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15 September 2017

Mr WONG Kam-sing, JP
Secretary for the Environment
Hong Kong SAR Government

Dear

K.S.,

Suggestions to prominent environmental issues
for the 2018 Policy Address

I am pleased to send you for your reference a copy of the submission from the Hong Kong Green Strategy Alliance (HKGSA) to the Chief Executive, sharing our views and comments regarding the prominent environmental issues for the 2018 Policy Address. The covering letter to the Chief Executive and the submission (Appendix A) are attached for your perusal.

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,

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Recommendations from the Hong Kong Green Strategy Alliance to 2017-2018 Policy Address

The Hong Kong Green Strategy Alliance (HKGSA) proposes the following for the Government's consideration:

General

(1) HKGSA strongly supports the implementation of a series of holistic approaches through social mobilization, policy and legislation and related infrastructures/means to tackle imminent waste problem and air pollution, and to address climate change and biodiversity issue in Hong Kong as stated in the following action plans:-

- Clean Air Plan;
- Hong Kong Blueprint for Sustainable Use of Resources 2013-2022;
- Food Waste and Yard Waste Plan 2014-2022
- Hong Kong Climate Action Plan 2030+
- Energy Saving Plan for Hong Kong's Built Environment 2015 ~ 2025+
- Biodiversity Strategy and Action Plan

The Government is suggested to regularly report the status of each approach mentioned in the blueprint and their effectiveness to the general public in a form of progress report, similar to the Clean Air Plan of which the public is kept informed. Among all the priority areas, HKGSA urges the Government to particularly tackle the imminent issues including solid waste management, climate change and energy efficiency in the coming year.

(2) With the advanced progress of technology (such as internet of things, wide application of mobile apps, etc.), there is need to reform outdated legislations with a view to promoting the development of innovation and technology. The Government is urged to coordinate various policy bureaux in reviewing outdated legislation and formulating policies afresh.

Solid Waste

(3) The waste statistic data showed that the MSW disposal rate per capita has progressively increased from 1.27 kg/capita in 2011 to 1.39 kg/capita in 2015 with a yearly averaged increasing rate of 0.03 kg/capita. The difference from the

record high of 1.43 kg/capita in 1993 is only 0.04 kg/capita. 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 0.8kg/capita in 2022 as proposed in the abovementioned blueprint seems to be very challenging since there are only five 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) Charging Mechanism

The Government announced on 20 March 2017 the proposed implementation arrangements for MSW charging. It was expected that MSW charging would be implemented in the second half of 2019 at the earliest. HKGSA generally supports the proposal. The Government should introduce the bill on MSW charging into the LegCo as soon as possible.

HKGSA supports "Charging by designated garbage bags" to be applied to premises using the waste collection service provided by the FEHD, which included most residential buildings, street-level shops and institutional premises. Waste should be properly wrapped in designated garbage bags before disposal, and the waste will generally be collected by Refuse Collection Vehicles (RCVs). The sizes of designated garbage bags with 9 different volumes ranging from 3 litres to 100 litres, as well as the arrangement of label for oversized waste are considered reasonable. The proposed per-litre charge for designated garbage bags at \$0.11, as well as the price of oversized waste labels at a uniform rate of \$11 each, is comparable to the price level with Taipei City and Seoul and was within the recommended level put forward by the Council for Sustainable Development. The charge level is considered acceptable. The Government should also explore the use of designated garbage bags on the premises of some Commercial and Industrial Sectors, which RCVs can be utilized, in order to maintain a simple and robust charging mechanism.

"Charging by weight" could be applied to premises of the Commercial and Industrial Sectors in which the disposed waste is not collected by RCVs,

such as through compactor (which will be hauled away by demountable truck for complete dumping of its contained waste), tipper (for oversized waste), etc. Under this charging mode, MSW disposed of at the refuse transfer stations (RTSs) / landfills at \$365 per tonne and that at the 4 urban RTSs / North West New Territories Transfer Station at a higher price at \$395 per tonne are considered acceptable.

In addition, the Government is suggested to prepare enforcement actions to address concerns of fly-tipping once MSW charging is implemented since the fly-tipping problem could be serious at the beginning of law implementation.

(ii) Recycling

It is noticed that China will no longer accept imports of 24 categories of solid waste by the end of 2017. This has caused a great impact on the local recycling industry since a tight import quota as well as an unnecessary high quality requirement would be imposed on “overseas waste” shipped to Mainland. In fact majority of the recyclables collected in Hong Kong is exported to 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 quota restriction from overseas regions as well as an unnecessary high quality requirement (e.g. PET flakes into 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 Recycling Fund to help upgrade the operation of the local recycling industry to meet the high quality standard of the imported recyclables, HKSAR Government may work with relevant Mainland departments to investigate whether Hong Kong’s generated waste recyclables can be treated as equivalent from China under the One-Country-Two-Systems policy in order to free from overseas import quota restriction and excessive high quality requirement (e.g. PET flakes into pellets). To avoid opening a flood gate for handling overseas recyclables into the mainland via Hong Kong, an import limit from Hong Kong alone could be imposed to ensure local recyclables meeting the

import quality requirements can be exported to Mainland.

HKGSA is pleased to note that the \$1B Recycling Fund has been set up in 2015 in order to allow recyclers in need to develop into a cost effective scale with potential technology enhancement to divert waste from landfills, improve overall recycling yield and increase the value of recycled products. The government should regard this Recycling Fund as the initial step of a long term commitment and should replenish the fund on an as-needed basis. HKGSA is pleased to know that the Fund has recently launched some specific themes (such as purchase of compactor truck, upgrading of waste plastics into semi-products, etc.) in order to help the local recycling industry to continue upgrade their operation with an aim to foster sustainable development of the Recycling Industry. In the event that the recycling industry faces even harder export restriction on their simply baled recyclables which the value addition is not high enough, the Government may consider to further support the Recycling Industry to invest on high end equipment and operation to recycle 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.

The Government may consider subdivide the space of EcoPark to allow smaller recycling companies to run their business in a sustainable manner. Also they may put selected high priority recyclable types as the basic requirement for recyclers to make bid for the land in the EcoPark.

HKGSA is of the view the inadequate recycling and collection systems in Hong Kong may create a sense of distrust that the recycled materials would be finally disposed of in landfills. For instance, it is found that the ratio of the recycling bins in terms of their size and quantity mismatches with the large amount of people living in high rise buildings. Similarly, the ratio of rubbish bins to recycling bins is always found much higher in street level, which does not help to build trust for the Government's efforts to increase waste recycling. All of these issues may explain why the waste disposal rate per capita was consistently high over the past years. The Government is urged to look for ways to reverse the mindsets / mistrust of people for improving our comparatively lower recycling rate. The Government is also requested to look into possibility to reduce the number

of rubbish bins in the street level together with proper public education so as to cultivate our wasteless culture.

The comprehensive phase of Producer Responsibility Scheme (PRS) for plastic shopping bags has been fully implemented in 2015, which helps reduce the waste generation. However, there's no room for complacency if we want to completely achieve the target.

Furthermore, HGKSA is pleased to note that the LegCo Bills for the PRS on glass beverage containers and Waste Electrical and Electronic Equipment (WEEE) were approved. Under these PRSs, 3 Glass Management Contractors (GMCs) will be awarded to collect the glass containers in the territory and a new WEEE treatment facility (ALBA-IWS) is being commissioned in 2017. HKGSA suggests the Government to do more on the publicity in a way that the public knows the free services provided by the GMCs on glass containers and ALBA-IWS on treating WEEE. Afterwards, the Government should continue to closely monitor the effectiveness of the implementation of PRS, and to enhance the enforcement, educate the public more and refine the regulation if necessary. We welcome that enforcement has been enhanced to fight against illegal import of hazardous electronic waste this year to avoid illegal import of WEEE. The effort should continue.

- (4) HKGSA is disappointed with the construction progress of Community Green Stations (CGSs). At the time of writing this paper, only four CGSs are in operation. According to EPD's website, one is under construction and the remaining are either "planning in progress", "views being followed up" or "site search in progress". The pace should be accelerated, and the Government needs to provide sufficient land and berthing facilities to facilitate recyclers' operation. HKGSA suggests the Government to do more publicity to promote the objectives of CGS's operated by non-profit-making organisations to enhance environmental education and help collect different types of recyclables in the local community. We also understand that there is a limitation on the collection of recycling materials for each particular period. The approach does not make sense since the CGSs should provide services convenient to the public. The collection mode needs to be improved. Anyhow, the Government should continue to closely monitor the service so as to improve the performance of the CGSs.

- (5) On waste treatment facilities, using thermal (Waste to Energy) technologies can substantially reduce the volume of waste is necessary for HK. HKGSA is supportive of the Government's adoption of the mass burn moving grate technology, which is proven and has been widely used around the world, as the first waste burning incineration plant. However, HKGSA suggests that other emerging but less-proven technologies may be considered in the future when they have become more mature. To educate the public to accept the “Waste to Energy” concept, the Government should continue to demonstrate the successful application of transforming waste to energy through T-Park in Tuen Mun.
- (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”. Food Wise Hong Kong Campaign was formally launched in May 2013 with the target of avoiding about 5 to 10% of food waste by 2017/18. HKGSA suggests the Government to keep the public informed of the progress against the target. If the target cannot be met, the Government should do more to meet the target. Apart from the incineration facilities and extension of landfills, the Organic Resources Recovery Centre (ORRC) is also an integral part of the waste treatment strategy but again seriously delayed in implementation. The Government should accelerate the development of other ORRCs in Sha Ling, 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. The Government should also expand the Food Waste Recycling Programme for Housing Estates by devoting more funding to the Environment and Conservation Fund (ECF) so that more residential estates can conduct on-site collection and treatment of food waste. HKGSA also supports the recently launched “Food Wise Eateries Scheme” which further engages the Food and Beverage (F&B) Sector to joint hands with the community in reducing food waste. We suggest the Government should conduct more awareness promotion so that both the F&B Sector as well as general public would know the benefits on this scheme.

- (7) To cultivate behavioral changes, the government should devote more funding to support specific environmental education / awareness programmes, both on community level and specific C&I and education sectors to promote “more vegetable and less meat” approach along with healthy diets with less salt and sugar to further suppress food waste generation while at the same time it is beneficial to the public health.

Air Quality

- (8) 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 as outlined in the Clean Air Plan for Hong Kong published in 2013 and subsequently its progress report in 2017. HKGSA welcomes the progress of each approach. HKGSA also understands that the Government had commenced the review of AQOs in mid-2016 and planned to report on the findings and recommendations to the Advisory Council on the Environment and the Environmental Affairs Panel of the LegCo by mid-2018. As such, HKGSA is of the view that the review results need to be appropriate and pragmatic so as to allow reasonable time frame through implementation of practical air quality improvement measures on balance of economic and social implications.
- (9) In order to combat the worsening haze problem, the Central Government has enacted The Action Plan for Air Pollution Prevention and Control to improve overall air quality across the nation through five years through the implementation of a series of mitigation measures, reduce heavy pollution by a large margin and make obvious improvement in air quality in Beijing-Tianjin-Hebei Province, the Yangtze River Delta and the Pearl River Delta. By 2017, the level of PM_{2.5} in cities above prefecture level will drop by at least 10% against 2012 level and the days with good air quality will increase year on year. According to Clean Air Action Plan in China (大氣十條), the level of PM_{2.5} in Beijing-Tianjin-Hebei Province, the Yangtze River Delta and the Pearl River Delta will cut by 25%, 20% and 15% respectively and the annual concentration of PM_{2.5} in Beijing cannot exceed 60µg /m³. With the concerted efforts made by China and Hong Kong, HKGSA is pleased to note that the air quality in the Pearl River Delta is improving. Through the Cleaner Production Partnership Programme, Hong Kong-owned factories in Guangdong Province are encouraged to adopt cleaner production technologies, thereby reducing their impacts to the environment. The

Government is suggested to provide more platforms for stakeholders to share their successful experience to further enable the technology transfer. 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.

- (10) HKGSA supports the Government to take more innovative pilot program of installing the floating PV solar system at Shek Pik Reservoir. The Government should consider integrating multi-features serving functions into a single object with the collaboration of the newly established Innovation and Technology Bureau. For example, a solar-powered street lamp post in China was said to incorporate ambient PM2.5 on-line analyzer, WiFi system and Charger for EVs; Mobile App's are widely adopted for displaying on-line ambient pollutants levels recorded at various air quality monitoring stations and emission levels from stationary sources. To combat air pollution, the Government can consider taking advanced technologies into account when we aim to increase the transparency for the interested stakeholders.
- (11) HKGSA is pleased to learn that the emissions from the diesel powered non-road mobile machineries (NRMMS) such as generators, excavators, etc., being used by construction sites are now controlled through the relevant regulation. Under the Regulation, NRMMS, except those exempted, are required to comply with the prescribed emission standards. 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. We suggest 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. Alternatively, to improve local air quality, owners are encouraged with incentives to replace their engine driven crane with electric powered type them with electric-powered type.
- (12) HKGSA is of the view that smart low emission transport and avoidance of congestion are important to provide a healthy and clean Hong Kong. Through the trial run of the road pricing system at a specific district, the result could be referred to if the Government wants to formulate ways to avoid traffic congestion to improve road side air quality.
- (13) 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. To promote the wide use of EVs, the first registration tax for EVs should continue to be waived after the current fiscal year ends in March 2018. The first registration tax concessions for electric vehicles should not be further reduced.

- (14) Encouragement to replace the fossil fuel based vehicle with electric vehicle (EV) is a right track to improve the road side air quality as well as reducing carbon emission. Although there are about 10,000 EVs in Hong Kong, most of them are private EVs but not commercial vehicles. The Government should implement more initiatives to facilitate the switching of public / commercial vehicles to electric vehicles such as the issuance of electric taxi / public mini-bus / bus licence.
- (15) To further promote wider use of EVs, the Government should boost the installation of more charging stations and further promote the use of EVs by providing economic incentives, such as free / discounted parking for EVs. The Government should also facilitate local development of critical EV components and drive systems, such as setting up specific themes in local R&D centres. The Government is suggested to review the feasibility of setting up public-private partnership to accelerate the pace of installing more EV chargers in both new and existing buildings. The international competition on innovative and practical ideas for reusing EVs' batteries is successful as their second life since retired EV batteries still have 70% to 80% of electricity storage capacity and their potential for second-life applications is immense. The Government should continue to organize such a meaningful competition, and actively look for practical solutions to utilize this type of battery.
- (16) HKGSA would like to take this opportunity to commend the event of the world's first fully-electric racing series, the FIA Formula E Championship which, the first of this kind, was successfully held in Hong Kong to attract tourists in October of 2016. HKGSA suggests the Government to consider expanding the racing track and releasing part of the viewing area along the track route for the public to view free of charge in a way that people can really immerse themselves in all of the energy and excitement of Formula E from the event and enjoy electrifying entertainment as part of the annual event to promote the wide use of EVs in Hong Kong.
- (17) Diesel commercial vehicles ("DCVs") are one of the major sources of roadside

air pollution in Hong Kong. To improve roadside air quality and better protect public health, the Government initiated an incentive scheme with the regulation to phase out some 82,000 pre-Euro IV DCVs by the end of 2019. While HKGSA is pleased to note that about 90% of the eligible pre-Euro DCVs had been phased out under the scheme, we suggest the Government to follow up on eligible vehicle owners who had not submitted applications so that we could ensure complete removal of all these polluting DCVs from the streets.

(18) There is a regulation to mandate the use of low sulphur fuel for marine vessels berthing at Hong Kong. To further reduce SO₂ emissions from the navigation sector, HKGSA supports the Government's proposal to mandate marine vessels to use compliant fuels within Hong Kong waters. As for the on-shore power supply (OPS), HKGSA is supportive of the Government's recommendation to keep a close monitoring on developments internationally on installation of OPS-capable systems in cruises.

(19) For the future fuel mix, HKGSA supports the increase in use of natural gas for local power generation to improve regional air quality and at the same time to reduce greenhouse gas emission to meet the 2020 fuel mix target under which, the gas portion would be increased to 50% of total electricity generation in 2020 and thereafter. As evidenced by the attack of the severe typhoon Hato on 23 August 2017, Hong Kong still maintained a high reliable electricity supply thanks to local power generation. HKGSA supports diversifying the sources of natural gas supply by constructing a local liquefied natural gas (LNG) terminal with options including the floating type (i.e. floating storage and regasification unit (FSRU) without being overly dependent on a single source of gas supply to improve fuel security and to enhance bargaining power in the international market for gas supplies. HKGSA regrets to note the EIA study for FSRU may take a longer time than scheduled to complete. It is hoped that the EIA study could be completed soonest possible so that this infrastructure is important to ensure fuel security in view of the increasing portion of gas in power generation.

Climate Change and Energy Efficiency

(20) Under the Paris Agreement on Climate Change as the global aspiration (COP21) in end 2015, 195 nations set path to keep a global temperature rise this century well below 2°C above pre-industrial levels and drive efforts to limit the temperature increase to 1.5°C. Regarding China's Commitment to Combat Climate Change, China has an interim carbon reduction target for 2020 and aims

to increase the share of non-fossil fuels to 15% in primary energy consumption by 2020 in its 13th 5-year Plan. In the above context, HKSGA welcomes the launching of the Government's Climate Change Report 2015, which is a timely document for the public before the COP21. The report helps communicate the risks that arise from climate change and provide strategic actions for the Government and business sectors. It also serves as a reminder that every individual has a role to play in combating climate change. HKGSA welcomes that the Government has set up a cross-departmental ministerial-level structure and engaged the key stakeholders with an aim to develop new carbon intensity reduction and associated targets for 2030. The Paris Agreement asks countries to move towards peaking as soon as possible. With the gas portion increasing to 50% in fuel mix in 2020 and continuing to grow in the years to come, Hong Kong, as a developed city, can consider taking this opportunity to achieve peak carbon by 2020.

- (21) The Government published the Energy Saving Plan for Hong Kong's Built Environment 2015~2025+. HKGSA welcomes that to achieve the new energy intensity reduction target, the Government has taken key actions to drive energy saving through a combination of economic, regulatory, educational and social means. HKGSA is supportive of all the actions taken to reduce greenhouse gas emissions, and to accelerate adoption of green building technologies in the private sector.
- (22) In many overseas countries, the installation of photovoltaic panels on roof top of residential and commercial buildings is an effective way to generate renewable energy as the cost of PV panels has been substantially reduced. Hong Kong Government should carry out a review on the current constraints limiting wider adoption of PV systems in buildings, the practices in overseas countries and formulate improvement and incentive programmes to encourage installation as part of the climate change combat strategy. The result of the review should be made ready to the public before the announcement of details of the feed-in tariff so that the community can decide wisely on whether to install renewable energy (RE) facilities in their premises. HKGSA also supports large-scale RE development such as offshore windfarm in Hong Kong to demonstrate our determination to build a low carbon economy.
- (23) On the demand side, HKGSA suggests the Government to encourage the joint effort of landlords and tenants to improve energy efficiency of facilities in commercial buildings. Although energy efficiency improvement technologies

are available, many landlords and tenants are not active in adopting these technologies because of financial and other considerations. Financial incentives are needed to overcome the financial barriers. We propose to reserve a matching funding of \$500M to incentivize cooperation between landlords and tenants to joint hand in implementing energy efficiency improvement projects. Similar scale of the recently completed Building Energy Efficiency Fund proves that such a matching fund will incentivize building owners to implement energy efficiency measures in their buildings. We believe that the proposed matching fund will be effective in encouraging landlord/tenant to cooperate in implementing energy efficiency improvement projects in a similar fashion. Projects for funding consideration may include re-commissioning / retro-commissioning of building services systems, demand side control of air-conditioning at tenant premises, etc.

(24) Carbon trading system, under the right circumstances, can be an effective market tool to facilitate and accelerate the investment in low carbon technology as part of the climate change combat plan. Since 2013, seven pilot carbon trading programmes have been established in various parts of China mainland to test the different components of the carbon trading platform with an aim to roll out a nationwide programme in 2017. HKGSA welcomes the Government's effort in finalising a study for carbon trading in Hong Kong. We hope that taking into account the uniqueness of Hong Kong and thoroughly access the different policy instruments available (or already in place) as well as their effectiveness in achieving real carbon reduction for Hong Kong, the Government should, based on the study findings, to formulate a policy strategy as soon as possible to promote GHG emission reduction in Hong Kong and identify opportunities for Hong Kong companies to participate in this new initiative. Hong Kong's financial sector and engineering industry can provide the professional and financial services to serve the Mainland's Carbon Market.

(25) On the review of the 6th Technical Memorandum (TM) for allocation of emission allowances for the two power companies in Hong Kong (aiming to reduce emission allowances in 2022 and after), HKSGA welcomes that the electricity demand is forecasted to reduce in 2022 as compared to that of 2021 when setting the 7th TM in 2017 subject to the negative vetting in LegCo in Mid October 2017. The lower load forecast mainly reflects the potential outcome of the "Energy Saving Plan for Hong Kong's Built Environment 2015-2025+" released by the Government. As a result, thanks to the increase in the use of gas for power generation, the emission allowances could be further tightened.

- (26) Hong Kong, as a developed city, should continue to increase the portion of renewable energy (RE) in fuel mix. HKGSA supports the commercial scale as well as distributed development of RE to enrich the knowledge of relevant professionals in this aspect on the condition that it would not have a significant impact on tariff. Feed in tariff scheme as an incentive under the new Scheme of Control Agreement (SCA) will be implemented. If some organizations wish to achieve carbon neutrality, they should have an option to pay higher price than normal tariff to purchase such green power in terms of RE certificates. HKGSA is pleased to note that all these matching schemes are taken into account in the new SCA.
- (27) The Government should implement energy efficiency installations in ALL government buildings, and encourage commercial buildings to adopt energy efficiency installations, through their own resources or through energy saving performance contracting arrangement. The Government may consider setting up an Environmental Installations Loan Guarantee Fund to support Hong Kong's enterprises for the installation of energy efficient / cleaner production devices.
- (28) HKGSA supports the Government's proposal on strengthening the regulation of edible fats and oils and the recycling of "waste cooking oils" through legislative amendments. It seems that only one franchised oil company in Kowloon side sells t5 per cent biodiesel blend product for customers seeking to meet their greenhouse gas emission reduction and sustainability goals. HKGSA suggests the Government to review with the oil companies and see whether they could sell the biodiesel in the whole territory of Hong Kong so as to promote the wide use of biodiesel in Hong Kong to reduce carbon emissions.
- (29) HKGSA is pleased to note that the Government has completed the two power companies and came up with the new Scheme of Control Agreement in the best interest of Hong Kong, enabling the Government to achieve its energy policy objective to ensure safety, reliability, affordability and environmental protection in electricity market. The Government is suggested to finalise the explanatory notes about the implementation of the new SCA soonest possible so that the engineering and related industries could properly plan in order to play a role in transforming Hong Kong into a low carbon city.

Biodiversity Strategy

(30) HKGSA welcomes the release of the Biodiversity Strategy and Action Plan in a social system where humans and nature could co-exist. This provides key actions to address environmental problems through the integrated approach of environment, economy and society, with which all the stakeholders learn more on how to conserve flora and fauna, marine and endangered species based on principles of the Convention on Biological Diversity while taking into account local needs and priorities. To increase the environmental awareness on protecting our natural resources, HKGSA suggests the Government to work closely with the NGOs to train more eco-leaders and promote the related green knowledge through eco-tours. Apart from this, HKGSA suggests the Government to develop more eco-heritage routes with education panels en-route on Hong Kong, which more people in Hong Kong and tourists could enjoy.

(31) HKGSA is supportive of the recommendations made by the Council for Sustainable Development in the report on the Public Engagement on Promotion of Sustainable Consumption of Biological Resources after an intensive stakeholder engagement process. The Government is suggested to take the lead to implement the recommendations to set up a role model for others to follow.

Fresh Water Supply

(32) Fresh water is crucial to humans. It is not only used for drinking, but also for washing and many other important activities. It is expected that fresh water would become scarce in the future partly due to climate change. Considering the recent lead water issue in Hong Kong and over reliance on imported water, HKGSA suggests the Government to elevate the current hierarchy of total water management strategy to a Water Policy as a driver to ensure the safety, reliability and security of water supply in Hong Kong. With this in mind, we suggest the Government to:-

- Review the water tariff structure - Hong Kong's water system is heavily subsidised by the government. As a result, waste bills in Hong Kong are among the lowest while our citizens are the higher water consumers in the developed cities. HKGSA suggests the Government to strike a balance between affordability and sustainability so that more people would care about the use of precious water.
- Step up the promotion of water conservation - the Government can

consider introducing incentives (e.g. provision of free water saving devices for the public) to reduce water consumption. The Government should also take a lead to set water saving targets for their premises and share the relevant experience with the public. Smart use of water through the advanced technologies should be encouraged.

- Consider other water source - HKGSA welcomes the approval of the EIA study on Desalination Plant at Tseung Kwan O using reverse osmosis under location conditions for producing potable water complying with World Health Organisation guidelines for drinking water quality. We look forward to the early completion of this plant.
- Cut the significant amount of lost water due to leakage - HKGSA supports the Government to continue to implement comprehensive pressure management to optimize water mains pressure so as to reduce leakage, and to enhance leakage detection and monitoring by adoption of new technology.
- Collect more of our rainfall and recycle waste water for planting and other purposes – HKGSA suggests the Government to conduct a trial on establishing a comprehensive water collection and recycling system in a new developed area to collect more experience.

To ensure water supply security, HKGSA has great reservation on the proposal of making land from Plover Cove Reservoir since the infrastructure for providing reliable and excellent water supply has been well established.

Water Quality at Victoria Harbour

(33) Given that cleaning up Victoria Harbour is important for public health, long-term leisure and amenity value of the coastal areas, the Government has been taking steps to protect this unique marine environment. The implementation of Harbour Area Treatment Scheme (HATS) Stage 1 in 2001 and Stage 2A in 2015 has greatly improved water quality in Victoria Harbour, which is well evidenced in the annual Cross Harbour Race since its resumption in 2011. The Government has completed a review of the implementation of HATS Stage 2B which is to provide for an underground biological treatment facility. The review results show that the existing facilities are adequate to handle the waste water in compliance with the Water Quality Objectives. HKGSA supports the Government's view that the implementation of HATS Stage 2B would be kept under review taking into account the water quality situation and the latest technological development in

biological treatment.

Review and Development of Water Quality Objectives (WQO)

(34) 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 in 2010. The second engagement on any proposed changes has not yet been kicked off. HKGSA suggests the Government to speed up the process.

Sustainable Development/Environmental Industry

(35) 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. Similar situation also exists in the developing countries such as ASEAN. 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, the Government should :

- 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

(36) 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 and our Octopus card has been a good example. HKGSA recommends the Government to consider adopting innovative environmental technologies/applications as the criteria in evaluating the tender submissions, so that more locally developed innovative technologies/applications can be considered as an incentive measure.

(37) We are pleased to note that many Hong Kong owned enterprises and overseas renowned companies actively took part in the Eco-Expo Asia 2016 to showcase their successful technologies and experiences. HKGSA suggests the senior officials of the Government should spend time to visit them in the coming Eco-Expo Asia 2017, not only to show the support, but to keep abreast of the advanced technologies being applied in the environmental industry.

(38) HKGSA understands that the number of items on the Government procurement list with green specifications is expanded to 150 items of over 20 product and service categories. The public can refer to these green specifications for the purchase. The Government should further improve its green procurement policy, and should consider including Carbon Footprint covering Life Cycle Analysis as one of the criteria. HKGSA recommends the Government engineering contracts should use certain percentage of environmental/green materials so as to create sufficient market potential to facilitate the healthy development of local environmental industry. ISO 20400 for sustainable procurement has just been published in April 2017 to help organizations make sustainable purchasing a way of life. The Government is suggested to take the lead in following this guideline for sustainable procurement.

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

(40) HKGSA is supportive of the recommendations developed by the Government's consultant, based on the Boyd Cohen model, on Smart City Development Program for Hong Kong covering six areas, namely "Smart Mobility", "Smart Living", "Smart Environment", "Smart People", "Smart Government" and "Smart Economy". We are of the view that these six areas should be integrated to each other to exhibit

synergy effect. This requires excellent coordination work across Government's various Departments to make it happen.

~END~

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