



Hong Kong Green Strategy Alliance

香港綠色策略聯盟

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Mr John KC Lee, GBM, SBS, PDSM, PMSM
The Chief Executive
Hong Kong SAR Government

Dear

**Suggestions to prominent environmental issues
for the 2023-24 Policy Address Consultation**

The Hong Kong Green Strategy Alliance (HKGSA) would like to share our views and comments regarding the prominent environmental issues for the 2023-24 Policy Address. Please find enclosed our submission in Appendix A for your perusal.

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 on green issues, projects and technologies etc., HKGSA would offer our professional opinions and solutions to tackle green issues in Hong Kong and neighbouring regions.

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 9482 3227 (irkennywong@gmail.com).

Yours sincerely,

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

c.c. Mr TSE Chin-wan, Secretary for the Environment and Ecology

Encl.

Recommendations from the Hong Kong Green Strategy Alliance to 2023-2024 Policy Address

The Hong Kong Green Strategy Alliance (HKGSA) proposes the following views for the Administration's consideration.

General

1. Maui wildfires happened in August have become the deadliest natural disaster in Hawaii history. Climate change is believed to have amplified the conditions that led to the deadly wildfires on the Hawaiian island. In Hong Kong, the maximum temperature at the Hong Kong Observatory reached 36.1 degrees in the afternoon of July 27 the highest of the month and July of 2023 is one of the highest monthly absolute maximum temperatures on record for July because of climate change. Apart from causing disruption, Super Typhoon Saola in September has made storm surge occurring around the city of Hong Kong, with seas rising three to four meters above normal tide. It's subsequent heavy rain fall inducing the longest black rain storm in HK's history as well as extreme condition occurred in the following week caused widespread damage across the city, which further proved the adverse effect of climate change. To address climate change, HKSAR targets to achieve carbon neutrality before 2050 and reduce its carbon emission by 50 per cent before 2035 as compared with the level in 2005. To strengthen co-ordination and promote deep decarbonisation, HKGSA is pleased to note that the Office of Climate Change and Carbon Neutrality has been set up in January this year. A Council for Carbon Neutrality and Sustainable Development will also be established to provide advice on decarbonisation tactics. However, there is still no sign of a more aggressive action plan to achieve the above targets. HKGSA urges the office and council to quickly advise their work and way forward so that the stakeholders could participate in the journey to address climate issues.
2. To achieve carbon neutrality by 2050 as the long-term target, the two power companies play an important role. Administration should look for ways to import reliable and affordable zero-carbon energy for HK across the border through regional collaboration from other places or develop those clean energy sources that have potential but not yet market ready such as hydrogen. For regional collaboration, the transmission system should be constructed in a way to ensure a high level of reliability while the power supply system will need to have a back-up from local generation sources. HKGSA also understands that the 5-year development plan under the Scheme of Control Agreement for the power companies is to be finalized this year. The new power generation plant with the capability to switch to zero emission fuel such as hydrogen and ammonia should be considered in the development plan. Also, we should consider to setup additional energy storage systems in HK from nuclear power plants from GBA to take up the night time nuclear production which could reduce carbon emission.
3. President Xi Jinping announced this year that the mainland will fully implement a development strategy driven by innovation to increase Hong Kong's scientific and technological capabilities. The adoption of digital technologies is essential to foster a smart future on deep decarbonization. The digital economy offers a way forward for providing opportunities for growth and resilience in the face of climate change. HKGSA has previously made repeated requests that the Administration should reform

its outdated legislations with a view to promoting the development of innovation and technology. Only when outdated legislations are phased out, the collaborative consumption or sharing of economies such as car sharing service, which aims to reduce wastage of both physical materials and resources, as well as to reduce carbon emission, can be realized. However, little is being discussed so far. HKGSA hopes that there is the quick progress of the work and wishes to know the status.

4. To meet the high demand for housing land and improve quality living environment, the Administration would explore 'all options' on land supply, including use of green belts and resumption and clearance of brownfields and, development of the Northern Metropolis and Kau Yi Chau Artificial Islands under the Lantau Tomorrow Vision. HKGSA supports that the Northern Metropolis and Kau Yi Chau Artificial Islands land can transform the land into a new economic hub focused on innovation and technology for achieving carbon neutrality. HKGSA also holds the view that the Administration has to seek to strike a new balance between urban development and ecological conservation. Similar to any large infrastructure projects, HKGSA suggests the Administration to conduct the stakeholder engagements to collect views on the engineering design during the planning and engineering study stage and HKGSA is pleased to provide views in this aspect. To attract more creative ideas from the industry, GFA concession should be given to green features i.e., waste sorting area, food waste treatment systems and solar panels carpark covers for residential and commercial areas should be waived throughout Hong Kong, instead of just rural area.

Sustainable Waste Management

5. HKGSA supports the Administration's decision to slightly delay the implementation of the Municipal Solid Waste (MSW) Charging Scheme to 1st April 2024, and strongly believes "it's better to get things right than to get them fast". It has never been the intention of the Scheme to subsidize or recover the cost of waste management, but in contrast to provide a catalyst to drive behavioral change of the public on consumption and disposal habits. With this slight pushback and a solid timeline for implementation, the otherwise adverse subjective perception by the public – the most critical success factor of the Scheme – shall be further alleviated.
6. While we are all looking forward to the commissioning of the 1st modern Energy from Waste (EfW) plant I-Park1 in Hong Kong, it is no secret that these EfW plants are very expensive, and it makes no sense to incinerate non-combustible materials and those that have an intrinsic value to the economy. In fact, the Government has also expressed its desire for innovative new-industrialization and a commitment to carbon neutrality. Materials Recovery Facilities (MRFs) in the form of automatic waste/ recyclables sorting systems have been adopted very successfully in many other jurisdictions. Hence this revitalized, hi-tech system would support the government's green living and industrial plans for the Northern Metropolis, Lantau Tomorrow Vision, etc. Modern MRFs can be compact and built-in multistorey developments, or these plants could be readily placed in operational landfills, refuse transfer stations or in EfW plants. HKGSA urges the Administration to seriously consider incorporating MRFs in our future master plan as an important step to move towards carbon neutrality.

7. HKGSA also opines that “you cannot manage what you cannot measure”. While EPD has been publishing an annual report titled “Monitoring of Solid Waste in Hong Kong” (the “Report”) in the past decades, the coverage of this Report is considered too narrow to comprehensively reflect the various challenges we are currently facing on waste management in Hong Kong, not to mention its content to echo the various Blueprints announced by the Administration.
8. It has been taking anywhere between 9 months and one full year to publish an annual Report for the preceding year in the past decade. The validity and usefulness of the information and data contained therein is greatly reduced as a result, undermining the tremendous effort by the Administration. HKGSA would therefore respectfully suggest the followings:
 - (a) The title of the Report shall be suitably amended to reflect its nature not just on solid waste, but waste management in Hong Kong as a whole. The Report shall include various “macro” data as well as more detailed, district-to-district performance of Community Green Stations, WEEE-, T-, O-, Y- and I-Parks as well as any other public / private initiatives, partnerships and facilities in operation.
 - (b) While HKGSA does realize that the Report requires input and efforts from other government departments on top of EPD, it is suggested that the Report shall be published more timely, say 3 months after the cutoff period, or otherwise on quarterly or bi-annual interim basis, with corrections / adjustments (if required) to be performed at year-end.
 - (c) The Report shall emphasize and realize the recycling efforts made by the public, in term of easy-to-understand metrics or some equivalent “environmental good”. Public participation has been a key towards successful and sustainable waste management anywhere in the world, and it is certainly sensible to keep them informed and upkeep the momentum, especially with the MSW Charging Scheme coming into effect soon.
 - (d) A revised Report shall also serve as a significant source of information for private and commercial recyclers to make their business decisions on investing, continuing, improving and expanding their operations. HKGSA believes that the private sector shall ultimately play a significant role in the recycling industry in Hong Kong, which will only become more pronounced once the Scheme is in force.
9. On the aspect of food waste management, HKGSA is quite disappointed to note the Administration’s current schedule on implementation of food waste management (co-digestion) facilities, now targeted to handle merely around 1,500 tonnes of food waste per day in mid-2030 (and incidentally with all other future major waste management facilities in the current planning). The schedule and capacity clearly require diligent and critical review.

10. In view of wider use of EVs in long term in Hong Kong, end-of-life EVs and the associated retired components would be a future waste concern. HKGSA notes and supports the Administration's current effort in establishing a recycling facility at EcoPark for end-of-life batteries from Electric Vehicles (EVs), and in fact is grateful to see that this long overdue aspect of waste management (since a decade-long adoption of gasoline-electric hybrid vehicles also containing lithium-based batteries) receiving more attention. However, HKGSA would prudently highlight the safety aspects associated recycling of lithium-based batteries, which is of considerably higher risk than recycling of the traditional lead-acid batteries. It is noted that the government is planning to introduce a Producer Responsibility Scheme to ensure the proper handling of retired EV batteries, and the Administration will conduct a consultation on the detailed proposal of the PRS in 2023, with a view to introducing the relevant bill in 2024. However if the collected end of life EV battery is not mandated to be handled in Hong Kong, the capacity to be handled locally will be very uncertain. Hence this is considered not a good facilitation measure to incubate local recycling capability on high end recycling technology. HKGSA suggests the Government to rethink appropriate policy direction. Apart from EV batteries, the Administration should also formulate strategy to tackle the associated end-of-life waste such as vehicle tyres.
11. On a similar subject, HKGSA urges the Administration to proactively look into the management of similar "environmentally-unfriendly byproducts from environmentally-friendly initiatives", with end-of-life solar panels being another classic example forthcoming.
12. Precious landfill space is running out. HKGSA is sincerely looking forward to the Administration's timely implementation of other "software" and "hardware" to achieve a sustainable waste management practice in Hong Kong, and does remain cooperative and constructive to assist as always if so called upon by the Administration.

Air Quality

13. Now that Administration has kicked off a new round of Air Quality Objectives Review with a view to exploring the scope for further tightening the objectives, and targets to complete the review in 2023. HKGSA requests the Administration to gather views from Air Science & Health, Road Transportation, Marine Transportation, and Energy & Power Generation, work out the plan for undertaking a series of assessments to evaluate the air quality improvement with current situations different from the past in terms of energy consumption patterns and others. HKGSA supports the Administration to review the AQOs at least once every five years in order to fully meet the ultimate targets set out by the WHO.
14. With the Clean Air Plan for Hong Kong 2035 released in June 2021 with effort to reduce air pollution and shipping emissions for improving air quality in Hong Kong, HKGSA supports the pilot scheme for electric ferries and light buses, the use of electric construction equipment/machinery and the review of the energy transport fund, the ex-gratia payment scheme for phasing out Euro IV diesel commercial vehicles. The Administration should regularly release the progress of the pilot scheme about the successful testing of green innovative transport technologies to the public.

15. Along the journey leading to the target that no new registration of fuel-propelled private cars including hybrid vehicles would be allowed in 2035 or earlier according to the Hong Kong Roadmap on Popularisation of Electric Vehicles released by the Administration in March 2021, the plan "EV-charging at Home Subsidy Scheme" ("EHSS") worth of \$3.5 billion to subsidise the installation of EV charging-enabling infrastructure ("EVCEI") in car parks of existing private residential buildings, and hence further facilitating EV owners to install EV chargers at car parks of their residences according to their own needs in the future is highly welcomed. Being glad to learn that the first hydrogen fuel cell bus and the first hydrogen refueling station in Hong Kong are expected to be put into operation this year, HKSAR urges the Administration to set a target to reveal a roadmap for the promotion of electric public transport and commercial vehicles and the long-term strategies for the application of hydrogen energy in the transport sector.
16. 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 Administration has conducted the electronic road pricing (ERP) Pilot Scheme in Central in 2020 and the study has been completed in 2022. With due consideration of the traffic conditions of the three road harbour crossings and current economic situations, HKGSA requests the Administration to determine when and how the ERP Pilot Scheme should be taken forward as soon as possible.
17. With the Administration's measures to promote the use of EVs, the total number of EVs slowly increases from 3.6% last year to 6.6% of the total number of vehicles as at end of June 2022. HKGSA urges the Administration to implement more favorable measures for users in coming ten years to achieve the target of no new registration of fuel-propelled private cars by 2035.
18. HKGSA expresses thanks to the Administration that the floating storage and regasification unit (FSRU) in the offshore LNG terminal had been put in operation in July of 2023. According to the Clean Air Plan for Hong Kong 2035, the Administration intends to widely use LNG in ocean-going vessels. HKGSA supports the Administration's proposal to explore the use of this offshore LNG terminal as a bunkering facility for ocean-going vessels, but without the expense of deteriorating the original objective to provide gas to power companies. To plan and develop LNG bunkering in Hong Kong, HKGSA urges the Administration to formulate a regulatory framework that covers all round of aspects such as licensing, safety, personnel competence, environment and sustainability, and simultaneous operations. The Administration shall kick off the work of introducing relevant policies that would incentivise and attract LNG-fueled ships to berth and bunker in Hong Kong with a view to transform Hong Kong SAR as a hub port and expedite the decarbonisation of its shipping sector.

Climate Change and Energy Efficiency

19. Hydrogen, emitting no carbon or other pollutants to the atmosphere, is an environmental-friendly and inexhaustible energy supply for the future. The hydrogen can be stored and used in a fuel cell to generate electricity, with heat as a byproduct that could be directed to heating or other applications. However, there are several ordinances such as Dangerous Goods Ordinance and Gas Safety Ordinance, which

applies to explosives, compressed gases, and other corrosive, toxic, or readily combustible substances, and regulates the import and provision of gas supply respectively. HKGSA requests the Administration to formulate a taskforce inviting experts to narrow regulatory gap and formulate the strategy and framework as part of the measures to achieve carbon neutrality.

20. HKGSA welcomes the successful implementation of feed-in tariff (FiT) scheme as an incentive which is limited to RE coming from wind and solar powers under the new Scheme of Control Agreement. However, in order to encourage development of different kinds of RE for promoting innovation, HKGSA previously suggests that the Administration can consider expanding the FiT Scheme to cover other types of RE generation other than wind and solar power with similar financial incentive. However, there is no feedback from the Administration.
21. Super Typhoon Saola attacked Hong Kong in September, which has exposed some of the weaknesses of solar energy development in Hong Kong's urban backdrop. The solar panels not properly installed on the roof were being blown away from the roofs of some high-rise buildings, triggering the safety issues. These used and damaged panels treated as regular municipal solid waste would increase the burden of landfill. HKGSA urges the Administration to seriously consider the lifecycle from the proper installation, disposal and treatment of used solar panels.
22. Many major corporate companies are required to report their scope 3 indirect GHG emissions from their supply chains. However, the "Guidelines To Account For And Report On Greenhouse Gas (GHG) Emissions And Removals For Buildings In Hong Kong" have been released for more than 10 years and are not able to provide the latest greenhouse gas emission factors for companies. HKGSA urges the Administration to update the Guidelines based on the international practice, which provide consistency and continuity in the estimation of GHG emissions for the companies.
23. Regarding the use of biodiesel, it seems that only one franchised oil company in Kowloon side sells 5% biodiesel blend product for customers. At present a total of two petrol stations are supplying biodiesel in Ma On Shan and Tsing Yi. HKGSA repeatedly suggested the Administration 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. It is not environmentally friendly for consumers on Hong Kong Island particularly drive to New Territories side for consuming biodiesel. However, there is no report of any suggestions to address the issues.

Biodiversity Strategy

24. The Biodiversity Strategy and Action Plan (2016-2021) was formulated to step up biodiversity conservation. HKGSA understands that The Agriculture, Fisheries and Conservation Department attended the second part of the 15th meeting of Conference of the Parties ("COP 15") to the UN Biodiversity Convention held in end 2022. HKGSA urges the Administration to update the action plans as soon as possible. It is hoped that Hong Kong people could make concerted effort to protect flora and fauna, marine and endangered species.

25. The death of a young whale in July in Hong Kong sadly told us that there is room for improvement in the handling methods in protecting the mammals among various government departments. In addition to organizing a series of science programme aiming at raising public awareness and engaging the public in protecting flora, fauna and marine species, the HKGSA also suggests the Administration to review the existing ordinances to empower the relevant departments to designate the site where the whale was sighted, as a protected area, if necessary, to prevent similar incidents from happening in the future.

Fresh Water Supply

26. 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 welcomes that the Water Supplies Department has been exploring new water sources which are not susceptible to climate change, including seawater desalination and recycled water (viz. reclaimed water, treated grey water and harvested rainwater). HKGSA welcomes the approaches, but observes that there is no much information in the public domain about the initiatives and the progress of the seawater desalination plant, and suggests the WSD to do to promote water conservation.
27. The WSD completed the review of total water management strategy in 2019. The review is important to confirm major initiatives in both water demand and water supply management under the Strategy and update the forecast of water demand and supply methodologies and projections up to 2040 with consideration of the possible impacts of climate change. HKGSA suggests WSD to do the same in 2024, 5 years after the review in 2019.

Marine Water Quality

28. For marine odour nuisance such as those at Tsuen Wan Bay caused by the discharge of wastewater from buildings into the sea through the stormwater system instead of public sewers network, HKGSA previously suggested the Administration to speed up the proposed work for improving the performance of the stormwater drainage systems such as dry weather flow interceptors and the use of odour-control hydrogel. HKGSA is pleased to note from the CE Policy Address 2022 that the Administration will regularly monitor odour levels at stormwater drain outlets and rectify misconceptions of sewer pipes, aim to reduce the amount of sewage discharge from outfalls identified outfalls emanating stench by half before end-2024. HKGSA suggests the Administration to regularly release the figure as appropriate with an aim to make Hong Kong a liveable city.

Review and Development of Water Quality Objectives (WQO)

29. WQOs were progressively applied to different water control zones from 1987 to 1996. The 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. While the AQO has been reviewed, and the relevant regulation/ordinances on noise, waste, EIA issues have been amended, there is no timeline to review the WQO which is to protect marine

waters which is our valuable natural assets. HKGSA previously expressed our concern to the Administration. However, there is no report of the review progress.

Sustainable Development of Environmental Industry

30. In order to develop a sustainable environmental industry in Hong Kong, HKGSA is of the view that the territory should have sufficient talents as well as good market opportunities. It has been proven that HK has developed cutting edge environmental technologies by local industry players when opportunities arose, e.g. HK's home grown technologies on recycling spent lubricant oil, treating landfill leachate, manufacturing eco-bricks with C&D waste, etc. However the applications are still far lower than our neighboring jurisdictions that have comparatively large industry base to support utilization of recycled materials. Majority of the local recycling operations are limited to materials baling and manual sorting only, which is considered low value addition. While new-industrialization is high in government's agenda, HKGSA urges the Administration to consider (i) allocating more land specifically for the environmental industry, (ii) introducing PRSs that could incubate / utilize local environmental industry's capabilities on adopting / developing high value addition technologies, (iii) be open minded on adopting innovative environmental technologies (as detailed in Clause 31), (iv) providing good facilitation measures, such as funding to support development of environmental and decarbonization technologies which could be applied directly to tackle real life problems (as detailed in Clause 32), and (v) attracting and retaining talents and investment to build a robust and sustainable environmental industry for the betterment of Hong Kong.
31. It is the Administration'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 Administration's tender requirement. Innovation is essential for advancing the economy. HKGSA previously recommended the Administration to consider adopting innovative environmental technologies/applications as the criteria in evaluating the tender submissions and would like to know the progress.
32. No one will deny that new types of skill for developing new technologies including but not limited to AI, big data analytic, block chain, robot and among others for environmental protection and decarbonisation will be required. The Administration 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. HKGSA is pleased that additional funding of \$200 million was into the Green Tech Fund (GTF) in 2022-2023 budget, with a view to further promoting decarbonisation and enhancing environmental protection in Hong Kong. While the continuous injection of GTF in the coming budget is welcomed, HKGSA suggests the Administration to provide the public with more information about the GTF so that the development of the green technologies such as carbon removal technologies and hydrogen economy which are pressing issues for Hong Kong to achieve carbon neutrality could be kept track of.
33. By making reference to the Smart City Blueprint for Hong Kong 2.0 released in December 2020 coverings over 130 initiatives to enhance and expand existing city management measures and services, "SMART CITY BLUEPRINT 3.0 Advisory

Report” was prepared by Smart City Consortium (SCC) in collaboration with the support of the Hong Kong General Chamber of Commerce (HKGCC) and the Hong Kong Polytechnic University’s Jockey Club Design Institute of Social Innovation to study this multidisciplinary topic. HKGSA supports the recommendations made in the advisory report, involving the roadmap for opening date, government digitalization, social inclusion and R&D to drive economic prosperity and among others. The Administration is urged to study the recommendations and set up the timeline for implementation.

34. HKGSA is pleased that Hong Kong and the HKEX has been progressively integrating ESG factors and reporting requirements for listed companies. However, it is not applicable to non-listed companies and smaller business. Hence, The HKGSA also supports the Administration to study the possibility of developing ESG laws in driving capital and investments towards green or sustainable finance, making ESG mandatory. HKGSA supports HKEX to closely align with the IFRS S2 Climate-related Disclosures as a driver for the contributors to develop their climate governance.
35. The Administrative should also speed up the pace in developing Hong Kong as an international green financial center. In this regards, more work needed to be done in (a) projecting climate risks so that the relevant stakeholders such as banking, investment and insurance sectors could better prepare themselves in terms of issuing loans and insurance policies; (b) fostering building retrofits at-scale for energy efficiency and other co-benefits like indoor air quality; (c) nurturing green talents to fill the gaps in the blooming green finance market; and (d) formulating suitable policies to support the development of green and sustainable finance such as aligning various financial disclosure standards and fostering a common taxonomy.

Retaining and Recognizing Local Experienced Talents

36. While the Administration has devoted tremendous effort and resources in attracting professionals from overseas and talents from our mother country, HKGSA believes that this integral plan shall also comprise measures to retain and recognize local experienced professionals. During the difficult times of SARS in early 2000, plenty of organizations had inevitably reduced the scale of their routine trainee and talent-nurturing schemes. Decades past, this has translated into a non-matching reduction of middle-level professionals and management in early 2020, drastically increasing of the workload of the-now senior management in “taking care” and training of junior level personnel on top of their routine duties and “making-up” for the “missing” middle-level duties. This has worsened as a portion of these local talents have chosen to bear the risk of taking another pathway once the COVID travel restrictions were lifted. In gist, local young and energetic talents at times feel neglected and senior professionals are indeed exhausted. This is clearly not something any party wants to see, and is clearly not a sustainable and healthy cycle for the sustainable development of Hong Kong.
37. HKGSA believes that there is still a significant portion of qualified and experienced, raised in Hong Kong, talents say between 40 and 60 who are willing and ready to contribute. Hong Kong has been outstanding primarily due to “quality”, not “quantity”. Localization is non-replaceable. These talents are also a key driving force in maintaining and advancing the future of Hong Kong. Unfortunately, it does not appear that the current Administration has given consideration or recognition to this group of

individuals, who are more-than-qualified and ready to contribute to Hong Kong and our mother country. HKGSA urges the Administration to recognize their contributions, for them being environmental professionals or otherwise.

~END~

18 September 2023