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CIVIC EXCHANGE

Date: 17 November 2020

To: **Mr Wong Kam-sing, GBS, JP and Mr. TSE Chin Wan, BBS, JP**

Regarding the Council for Sustainable Development's recommendations for Hong Kong targeting Net Zero carbon emissions by 2050

Civic Exchange[i] welcomes the recommendations from the Council for Sustainable Development (SDC) based on its 2019 public engagement on Hong Kong's Long Term Decarbonization Strategy. The SDC has stressed the pressing need for Hong Kong to commit to advancing to net zero emissions by 2050 under global effort to limit global average temperature increase to 1.5°C above pre-industrial levels.

Civic Exchange supports this critical long-term vision and the overarching objectives as outlined in the SDC's report, placing focus on the energy sector, built environment, transportation, green finance, low-carbon lifestyles, and research & development. The report calls for the Government to rapidly implement short, medium, and long-term action plans based on the SDC's recommendations

Acting sooner will enable a more gradual and progressive transition without undue cost. A timid, lagging approach is likely to lead to Hong Kong having to make rapid cuts in emissions at some future date with unpredictable, adverse consequences on the city's socio-economic development.

This letter responds to the report's six 'key areas' (A. – H.) of recommendations.

A. Target

We welcome the SDC's recommendation that Hong Kong chart a roadmap with critical milestones supported by action plans to progressively advance to net zero carbon emissions by 2050. Further, we recommend regular iterative reviews to track progress, update benchmarks and make any other adjustments needed to ensure Hong Kong is on track for Net Zero by 2050.

B. Lifestyle

We support the SDC's emphasis on the need to change lifestyles. In particular the following recommendations:

- Action to help **improve understanding and reporting of carbon emissions of (consumer) products**, i.e. Scope 3 emissions which include embodied carbon.
- **Incentives or support to enable consumers to prefer low-carbon items**.
- **Use of information technology and digital services** such as online education and videoconferencing to reduce the economy's carbon-intensity
- **Development of local tourism** to substitute for carbon-intensive outbound travel.
- **Promotion of green procurement, zero-waste design, and recycling**.

- **Recognition of the inherent vulnerability of Hong Kong's economy given its dependence on imports** for food, energy, and manufactured goods: A concrete long-term vision of a successful low-carbon type economy is needed, with steps towards this goal such as adopting consumption-based accounting for embodied carbon and facilitating businesses providing low-carbon goods and services.

Beyond SDC's recommendations, we urge the Government to further consider:

- **The Commissioner for Tourism focusing on lower carbon inbound tourism**, e.g. by a 'carbon emissions per night' metric, to reduce risks of curtailed tourism as global decarbonization progresses.

C. Education, training, and research

We agree with the SDC's recommendations on furthering education to aid decisions on moving Hong Kong to a low carbon economy, and to actively support the uptake of necessary new and additional skills for this new economy.

In addition to the SDC report's action items, we recommend:

- **Ensuring a 'Just Transition':** Suitable new jobs need to be created for people working in sectors with significant projected job losses. Retraining programs should be developed in a timely manner to reskill the affected part of the workforce during this transition.

D. Built Environment

The SDC report rightly notes the importance of building energy efficiency, as buildings account for 60% of Hong Kong's current carbon footprint. It provides a comprehensive list of actions for improving building energy efficiency.

To reduce the risk of slow progress due to pursuing multiple initiatives concurrently, we recommend that priority be given to item D6) (iii), namely:

> *'Developing an open database of energy consumption and/or carbon emissions of buildings, with a view to encouraging competition among building owners of estates/neighbourhood to decarbonise'.*

Before making this recommendation we have considered the EMSD's 'Energy Utilisation Index' for buildings (https://ecib.emsd.gov.hk/index.php/en/overview). We find, however, that it is not effective. Rather, to maximize the effectiveness of such an open database, we recommend introducing an 'Energy Star' measure, which gives the public an easy understanding of a large building's energy efficiency in the same way as they understand the quality of a Hotel from its 'Hotel Star' rating. We recommend:

- The 'Energy Star' ratings should be recertified by an independent assessor every 12 months based on actual performance in the last 12 months.
- The scheme should be a prerequisite for future GFA concession grants but otherwise be voluntary initially. As the scheme becomes established, the ratings should be made mandatory for large buildings (e.g. > 2,000 m^2) and could be used as a basis for tax or other measures to incentivize building energy efficiency.

In addition to the SDC report, we also recommend the following actionable items with regard to building energy efficiency:

- Cooperation between the Electrical and Mechanical Services Department, Lands Department, and Census and Statistics Department to **upgrade the Government's reporting of Hong Kong's energy use** as follows:
    i. **Separate reporting of energy use for the provision of services to building services from energy use within buildings:** For example, show energy used by Water Supplies Department and Drainage Services Department separately from building energy efficiency.
    ii. **Introduction of area-based intensity metrics** (e.g. energy per square meter of built space) to enable transparent tracking of changes in consumption due to improved efficiency as opposed to changes in the amount of built space.
    iii. **Publication of more timely reports supported by openly available spreadsheets of data** to enable further analysis by stakeholders: Currently the latest available data pertains to the year 2018 and was published 20 months after the end of that year.
- **Requiring Life Cycle Analysis before issuance of Occupation Permit** for large buildings with the resulting data published by the Building Department: This is an essential first step in managing down Hong Kong's embodied carbon, i.e. emissions from producing material used building construction and the building construction process. There is a profound lack of information on embodied carbon in Hong Kong's buildings to date.

E. Energy

We generally agree with the SDC's recommendations on electricity generation but suggest the following further provisions:

- **Annual reports on renewable energy generation** in Hong Kong covering the previous year's actual, current year's forecast and future potential, provided by the Electrical and Mechanical Services Department: Reporting on future potential should include an assessment and discussion of barriers and enablers for increasing Hong Kong's renewable energy. This will aid the growth of renewable energy production in Hong Kong and, importantly, clarify the extent to which Hong Kong needs to source electricity generated through other means, including electricity generated regionally.

- **Consideration of four important areas, which the SDC report did not cover:**

  i. **The future and role of distributed gas** in moving to net zero emissions: The replacement of distributed gas supply by either electricity or a hydrogen plus inert gas mix needs to be studied urgently to avoid unjustified continued investment in distributed gas if it will later have to be phased out. Some jurisdictions have already specified cut-off dates beyond which 'no new residential gas connections' will be approved.

  ii. **Carbon Capture and Storage and Direct Air Capture (DAC)**: While these technologies have not reached commercial viability, both the IEA and IPCC advise they will be needed to reach net zero by 2050 globally. The Government should establish a centre of expertise for monitoring global progress on these technologies to enable Hong Kong to become a potential 'fast follower' in implementation once they have been proven elsewhere. Further, should Hong Kong have remaining net emissions in 2050 it may have to pay DAC costs to other jurisdictions to remove these from the atmosphere.

  iii. **Balancing of electricity supply and demand**: Moving from coal and gas to renewable and nuclear energy generation will render electricity supply less flexible and harder to match to fluctuations in demand. Better demand management, electrical and thermal storage in buildings and the possibility of using hydrogen to store energy storage should be explored. In the latter case, hydrogen production by electrolysis can be used when there is surplus electricity and the hydrogen consumed to generate electricity when demand exceeds supply.

  iv. **Supporting the shipping and aviation industries transitioning to low carbon fuels:** This is covered in Section F of the SDC report but without mentioning of the types of low-carbon fuel. If, as seems likely, hydrogen and/or ammonia are used for shipping, their use in refuelling ships in Hong Kong would provide economies of scale to make hydrogen economic for ferries, heavy goods vehicles and buses. It would also reduce the cost of using hydrogen for peak electricity generation for grid balancing.

F. Transport & G. City Planning and Management

These two 'key areas' are intrinsically linked, and we therefore discuss them in combination. The SDC's report covers the three-pronged "Avoid-Shift-Improve" strategy which we support. We are, however, concerned about the apparent priorities and the unreasonably long timeframe ('more than 10 years') of certain important measures.

Particularly, we are surprised that 'further restraining automobile ownership' and 'piloting electronic road pricing (ERP) schemes to alleviate localized traffic congestion and the associated roadside vehicle emissions' are only listed for consideration in more than 10 years' time. The number of licensed private cars grew by 58% between 2005 and 2019, and their share of traffic increased from 32.5% to 42.5%. Private cars majorly contribute to traffic congestion, which in turn worsens our carbon footprint, damages our health, reduces our quality of life, and degrades our economy. Secondarily, they have major impacts on the efficiency of on-road public transport.

We recommend the Government make both policies items for high-priority urgent action.

Our further specific recommendations in addition to the SDC report are summarized below:

- **Avoid journeys:**
  - i. **Change stamp duty to facilitate people moving home:** Reducing the cost of people moving to a home closer to their work would contribute to avoiding journeys. It would also remove a barrier to people to change the size of their flat to better match their needs, thus making more efficient use of available residential accommodation. This could be achieved by waiving stamp duty tax for any person selling their home and buying another within a specified time period (e.g. 2 years).
  - ii. **Adoption of the C40 cities '15 Minute City' theme** with the aim to have most provisions for citizens located within a 15-minute radius from their homes.
- **Shift journeys** from high carbon to low carbon transport modes.
  - iii. **Restrictions to private car ownership and electronic road pricing** to curb traffic congestion should be high-priority measures on a short time frame.
- **Improve** the quality of a transport mode by decreasing its carbon intensity.
  - iv. **Disincentivizing non-EV cars**: We support the transition to EVs but believe actions to shift citizens from private cars to public transport should be of higher priority. We therefore oppose subsidizing EVs and instead propose making non-EV cars more expensive as an incentive to buying EVs.

H. Finance

We note the SDC recommends the Government monitoring international action rather than taking steps to introduce a carbon price. However, there are well-founded reasons to support a more accelerated move to carbon pricing. We also believe that the enhancement of corporate ESG disclosure as recommended by the SDC should include further measures.

In particular, we recommend further to the SDC's recommended actions:

- **Consideration of moving to carbon pricing faster:** The European Union will proceed with its proposal to introduce a Carbon Border Adjustment Mechanism (CBAM). This would levy a tariff on goods imported into the EU from jurisdictions which have a lower carbon price than the EU. More countries are likely to follow on imposing a carbon price to collect the levy rather than relinquishing it to the EU treasury. Moreover, the PRC has announced the introduction of carbon pricing. The implementation of these two measures will make it significantly more beneficial for Hong Kong to also introduce carbon pricing.
  In view of the above, we recommend the Government give priority to preparing for a carbon price. Part of the preparation should be a system of 'shadow' carbon prices as these would provide an understanding of how different investments would be impacted by carbon pricing.
- **Reinforcing the enhancement of corporate ESG disclosure**: Alignment with international standards will be important to the global standing of Hong Kong's companies and financial markets. Also, in cooperation with other parties, Hong Kong regulators should facilitate sector-specific and Hong Kong-specific scenarios that can be used for reporting in accordance with the Taskforce for Climate Related Financial Disclosure's recommendations.

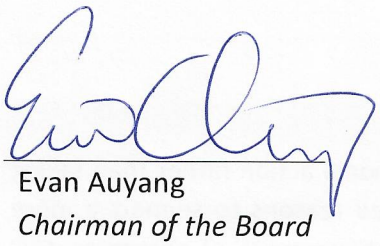
- **Contributing to the work of the taskforce between China and Europe on harmonising sustainable finance**: Hong Kong should actively provide support and contribute to the taxonomy harmonisation process

To conclude, the SDC's report covers the key issues which need to be addressed for a successful transition to a low-carbon society. Civic Exchange urges the Government to follow SDC's recommendation to commit to reaching net-zero emissions by 2050 and to act fast and early so the transition can be made efficiently.

It is critical that the Government makes decisions rapidly to ensure Hong Kong's future prosperity and to start exploiting important synergistic effects of decarbonization. For Hong Kong, the benefits of air pollution mitigation and public health improvements alone would equate to saving 26,000 lives by 2050, while new business opportunities, and newly created job markets on the pathway to net-zero emissions would offer significant impetus for economic growth.

We would be pleased to offer further elaboration on any of the points mentioned above.

Yours Sincerely,



Evan Auyang
Chairman of the Board
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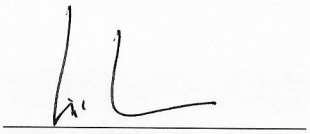

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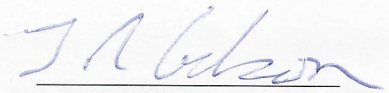

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[i] **About Civic Exchange**

Civic Exchange is as an independent public policy think-tank and made its own submission to the Council for Sustainable Development's public engagement in Fall 2019. It partners with the World Resource Institute, the RS Group and ADM Capital Foundation to study the optimum strategy for Hong Kong reaching Net Zero by 2050 and in particular what actions must be taken now to achieve this at least cost. Hong Kong 2050 is Now's June 2020 policy recommendations are published here.