

The Honourable Paul Chan Mo-po  
GBM GBS MH JP  
Financial Secretary  
Office of the Financial Secretary  
25/F, Central Government Offices  
2 Tim Mei Avenue  
Tamar, Hong Kong

25 January 2022  
(by e-mail)

Dear Financial Secretary,

### **2022 Budget Consultation Recommendations**

2021 was Hong Kong's warmest year on record. Climate change is starting to impact biodiversity and increase the frequency of extreme weather events. All further net GHG emissions mean rising cost in human suffering and financial losses. Given the urgency, a prime objective of the budget should be to accelerate decarbonisation in Hong Kong and strengthen our resilience, particularly by planning for the consequences of the forecast multi-meter sea level rise coupled with storm surges.

Civic Exchange was pleased to be invited to share our views at the Budget Consultation session with other think tanks and academics last November. We welcome the commitment to reduce carbon emissions by 50% before 2035 and to reach net zero by 2050 included with Hong Kong's Climate Action Plan 2050. However, action must be accelerated further, with a consensus from the UN's COP26 that all countries should submit 2030 targets by the end of 2022. All commitments will need alignment among government departments and strong fiscal support.

Following our recommendations made at the session, Civic Exchange has developed this submission to the 2022 Budget Consultation, referencing our research as well as results from stakeholder engagements. We encourage the Financial Secretary to develop a science-based, holistic, and ambitious plan to fast-track climate change policy for Hong Kong. We have prioritised the following aspects:

- Power sector;
- Buildings;
- Transport;
- Waste;
- Green and Sustainable Finance;
- Adaptation and Resilience

Our recommendations for each action target can be found in the Annex.

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We hope that consideration will be given to our suggestions, which we believe will further help foster innovation, improve our energy supply, reduce energy consumption from our buildings and de-risk our economy, while promoting sustainable development for Hong Kong.



Yours sincerely,

Lawrence Lu

Climate Change & Partnerships Lead, Civic Exchange

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## Annex

### Civic Exchange's recommendations on 2022 Budget Consultation

#### POWER SECTOR

- **Increase policy and regulatory support for decarbonising the power sector** to achieve the Hong Kong Climate Action Plan 2050 (CAP2050) 2035 decarbonisation commitment while keeping energy bills affordable. Actions to consider include:
  - Allowing tariffs to be more variable according to the time of day to facilitate matching supply and demand.
  - Allowing tariffs to be altered so charges fall more on those who can most afford the cost. Specifically:
    - A more progressive residential tariff so that low-income people in low consumption units pay relatively little increase.
    - Tariffs for Grade-A Offices might be higher as those renting them can afford the higher rate.
  - Proactively support Hong Kong companies to source low carbon electricity from Mainland Chinese regional sources.
- The existing **partnership** between Guangdong Province and CLP for the use of **the Daya Bay** nuclear power plant **can be used as a blueprint to import cleaner, lower carbon**, and reliable power supplies.
- Follow in China's lead to establish plans for **carbon trading, and carbon pricing**.
  - Hong Kong lags behind in carbon pricing and greater levels of carbon trading. Current carbon trading through the form of Renewable Energy Certificates does not meet the potential carbon trading and pricing holds in Hong Kong.

#### BUILDING SECTOR

Buildings use 90% of Hong Kong's electricity. We welcome CAP2050 committing to reductions in consumption in buildings of between 10% and 20% by 2035. CAP2050 does not mention Towngas. We believe that some use, such as water heating, will switch from Towngas to electricity, It is therefore appropriate that the energy reduction commitment should cover the total of electricity and Towngas use.

Meeting the reduction commitment will be tough given the increase in building stock projected by the government's Planning Department. We are, therefore concerned the CAP2050 commitments will be met unless the following actions are taken and supported by budgetary measures:

- **The Government publishes a plan for reducing both electricity and Towngas consumption.** This plan should:
  - Set a 2030 target as well as the 2035 commitment. This will support the reporting of Hong Kong's 2030 commitment for including in China's submission to the UN. It will

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also help monitor whether sufficient progress is being made to meet the 2030 commitment.

- Take data from EMSD's End Use Energy Data 2019 (the last year available) and other sources to set subsidiary targets for building sectors including:
  - Residential: Separate targets for the Housing Authority and Private Sector. These target to include both all electricity and Towngas used other than electricity for EV charging for which there should be a separate target.
  - Itemise infrastructure providers with substantial energy consumption and set targets for each of them. This includes, WSD, DSD and Highways Department.
  - Itemise and set targets for both energy consumption and energy consumption per square meter for each main group of government buildings. For example: Hospital Authority, Government Offices, Government Schools and each University.
  - Set targets for each type of Commercial Building.
- We believe **increased transparency** is the policy initiative which is key to meeting the CAP2050 commitment for reduced energy consumption in buildings. This transparency should apply to embodied carbon in buildings as well as operating energy consumption. It can motivate behavioural changes and building owners investing to save energy. For the transparency to be effective there should be:
  - A single building energy rating system<sup>1</sup> so results can be compared.
  - The results be published on a government regulated database from which anyone can download data for analysis.
  - The system to provide design and first twelve month operating energy efficiency data on the same basis so there is evidence of whether design performance is met.
  - The operating performance to be remeasured with the results published annually.
- **Embodied energy** in buildings is also substantial but Hong Kong currently has very little information on it. To correct this, we recommend we systematically measure the embodied carbon of new buildings with Government taking a lead in doing this for its own buildings and (see budget measure below) mandating it for all new GFA concessions given.
  - This requirement will enhance Hong Kong's capability for measuring embodied carbon and hence reduce the cost of doing so.
- We recommend the following **budget measures to accelerate the introduction** of a transparent building rating system.
  - A fund be set up to accelerate the government's work on the initiatives listed above.
  - Set up a fund to accelerate action on energy saving measures, retro-commissioning, retrofitting and redeveloping, where appropriate, the approximately 10,000 private buildings that are over 50 years old. The fund might pay for studies to identify energy saving opportunities, free or low-charge feasibility studies and 'demonstration projects'.

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<sup>1</sup> The debate over which building energy efficiency system to use causes delay. We note the main options include (a) Adding functionality to BEAM+, perhaps a BEAM+Energy Star; (b) EDGE which is well connected to International Green Finance; and , (b) Nabers which performs well in Australia and is likely to be made mandatory for large buildings in the UK.

- All future awards of GFA concession to have the following prerequisites:
  - A covenant that the first building owner and any subsequent building owners will use any building energy rating system required by a Buildings Department Practice Note.
  - A Life Cycle Analysis with details of the building's embodied carbon will sent to Buildings Department within, say, 3 months of Occupation permit.
- A study be conducted into changing taxation on buildings according to their energy efficiency. This study should consider:
  - Once the energy rating system is reliable, change Property RATES from 5% on all buildings to a sliding scale with efficient buildings paying less. This might be done initially only for Commercial Buildings above a certain size. The changes can be revenue neutral with RATES on inefficiency buildings being increased while those on efficient ones are reduced.
  - Introducing a carbon tax on energy used in buildings. This might be done as a revenue neutral measure by reducing rates at the same time as the carbon tax is introduced.

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## TRANSPORT SECTOR

The government should **fund a study to recommend a holistic plan for decarbonising mobility** in Hong Kong's. This study should:

- Compare Hong Kong with C40 City leaders in decarbonising mobility to identify opportunities for improvement.
- Note options for improving the governance of mobility in Hong Kong. This includes recommending how areas requiring cross-bureaux policy coordination can best be handled.
- Consider the 'Avoid', 'Shift' and 'Improve' approaches to decarbonising mobility.

### 1) AVOID

- Stamp Duty on sale of properties currently discourages owner-occupiers from moving home to be closer to their work and thus cut community time. To reduce these journeys Hong Kong citizens should be allowed to designate one property they own and live in as their 'Principle Private Residence'. If they subsequently sell this property and buy elsewhere in Hong Kong the stamp duty they pay on the new property should be reduced by up to the Stamp Duty payable on the property they sell. (NB: Another efficiency improvement from this change is encouraging people to 'downsize' when they no longer need a large home.)

### 2) SHIFT

- Hong Kong's road congestion significantly increases journey times and carbon emissions. Policies should be implemented to motivate people to use public transport rather than private cars. These may include:
  - Electronic Road Pricing whose advantages include reducing congestion by shifting some traffic from peak to off-peak periods.
  - Giving greater priority public transport use of road space.
  - Increasing taxes on private cars.
  - Reducing the motivation for owning a car by providing better alternatives. These include:
    - Facilitating uber-type services which meet the special needs such as families with children needing car-seats or invalids.
    - Changing planning rules to encourage developers of large blocks of flats to provide a small car-park with a Zip-car type service rather than one parking space for each flat.
- Look for new funding and operation models for public transport operators with the objectives of:
  - Increasing the attractiveness of public transport compared to cars.
  - More flexible routing and interchange arrangements aimed at increasing the load factor for public transport.

### 3) IMPROVE

- Accelerate the transition for diesel/petrol to 'clean energy' vehicles by:
  - Increasing taxes on diesel and petrol vehicles.

- Setting clear targets and timelines for infrastructure support and capital investment to support the transition to clean energy vehicles.
- Define new funding and operation models for public transport operators, including subsidising the purchase of clean energy vehicles.
- Develop infrastructure such as charging facilities or hydrogen refuelling to accommodate new technologies.
- Lead, fund, and coordinate large-scale trials of both battery electric and hydrogen fuel cell buses.
- Where appropriate, provide low-interest loans for retrofitting bus depots and other infrastructure.
- Remove the regulatory barriers for technology development and adoption.
- Encourage innovation —such as new research centres at local universities and private companies or expanding support for the Innovation and Technology Fund— to develop the commercial viability of new technologies such as green hydrogen and zero-emissions transportation.

## WASTE

CAP2050 includes adding a second Integrated Waste Management Facility (IWMF) by 2035. We note that a site has been planned for this on the ash lagoon next to Castle Peak Power Station. Investment in this facility should be fast tracked now. The technology is mature so there is no justification in waiting until the first is in operation.

## GREEN AND SUSTAINABLE FINANCE

- Increase Hong Kong's potential to become a regional green finance up by:
  - Issuing financial instruments such as green bonds, sustainability-linked debt instruments, and transition bonds, to promote green technological innovation, retrofitting of existing infrastructure, and the alignment of all sectors with a net zero pathway.
  - Encouraging both the use and the expansion of the common-ground taxonomy developed under the leadership of the EU and China.
  - Actively participate in developing more specific guidelines and definitions for green projects, especially in the property sector, while expanding the green bond committee.
- To monitor the International Sustainability Standards Board (ISSB) development of a Climate standard and reaffirm Hong Kong's expectation that it will look to this standard becoming mandatory by 2025 for:
  - Listed companies.
  - Other large organisations, including government departments and large organisations which it funds.

- Enhance collaboration with the GBA on carbon markets and green finance to promote Hong Kong's status as an international green finance hub.

## ADAPTATION AND RESILIENCE MEASURES

The World Resources Institute remarks that 1 USD invested in adaptation generates between 2-10 USD in return in the form of damage avoided. For this reason, Hong Kong should capitalise on this opportunity by improving the readiness of infrastructure to withstand extreme weather events.

Hong Kong should increase funding to nature-based solutions. An example is mangroves protecting shorelines, sequestering carbon, and enhancing biodiversity. Moreover,

The October 2021 Northern Metropolis Plan does not mention sea-level rise, whereas the August 2021 IPCC AR6 Working Group 1 reported the possibility of a 6.9 meter in global average sea level by 2300. The scientific advice is that sea level rises of this amount or more are very likely in the very long-term. What science cannot advise is how rapidly the sea level will increase. Given this we suggest:

- The Government develop plans for Hong Kong to protect the city from, for example, five meters of storm surge plus high tide on top of three scenarios—2 meter, 4 meter and 7 meters—for the increase in average sea level. The plans would not have a particular timeline given the uncertainty on when the sea level rise will occur.
- As part of the planning the Government should identify any areas which it is uneconomic to defend under each of these three scenarios. This can guide decisions on where it is appropriate to invest in long-life assets such as MTR lines.