



The Hon. Carrie Lam Cheng Yuet-ngor, GBM, GBS
Chief Executive
Hong Kong Special Administrative Region
Tamar, Hong Kong

Dear Chief Executive,

Submission on the 2019 Policy Address Public Consultation

Since 1983, Friends of the Earth (HK) (“FoE (HK)”) has led the environmental dialogue by engaging government, business and community with equitable solutions to protect our local and regional environment. With the vision to promote a healthy and sustainable environment for all, we are pleased to enclose our submission on the Government’s 2019 Policy Address.

Climate change is worsening and impacting the liveability of Hong Kong. As a progressive international city, Hong Kong must recognise the need to address climate change. Our submission is as attached and makes the following overarching recommendations:

1. Adopt the carbon targets from the *Special Report on Global Warming of 1.5 °C*;
2. Develop renewable energy and integrate demand side management;
3. Cap private car ownership and phase out fossil fuel vehicles;
4. Implement the most appropriate form of carbon pricing for Hong Kong;
5. Strengthen coastal and flood resilience in face of extreme weather events;
6. Solidify Hong Kong’s position as the green finance leader in the region;
7. Scale up environmental sustainability requirements and divest from fossil fuels

We welcome the opportunity to continue working closely with all government bureaux and departments. If there are any queries on the submission, please contact me at simonmak@foe.org.hk.

Yours Sincerely,

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Decarbonisation

1. Ambitious Carbon Reduction Targets

Climate change is happening and getting worse. The use of fossil fuels is changing the climate at an unprecedented rate. Hong Kong's current targets are insufficient to achieve the 2°C scenario. The Intergovernmental Panel on Climate Change stated with high confidence that a half-degree difference will significantly magnify climate risks.¹ As a coastal city, Hong Kong is particularly vulnerable to climate change threatening people's health, livelihood, economic growth, and more. To limit global warming to 1.5°C, the world needs to cut emissions by 45% from 2010 levels by 2030 and to reach net zero by around 2050.² **The Government must adopt the targets from the Special Report on Global Warming of 1.5 °C and prepare a long-term strategy for rapid and deep decarbonisation before 2050.**

2. Renewable Energy Supply

Electricity generation is a major source of greenhouse gas emission in Hong Kong.³ Decarbonising the electricity grid is thus one of the most effective means for Hong Kong to reduce its carbon footprint. Hong Kong benefits from a fair amount of wind and solar resources as a coastal city near the equator. Beyond deploying renewable energy infrastructure locally, Hong Kong can also work with neighbouring cities in the Greater Bay Area to gain access to the wealth of renewable energy sources nearby. Moreover, renewable energy is already cost competitive with fossil fuels in 2017 and is predicted to halve by 2020.⁴ **The Government should transition the energy grid away from fossil fuels to low-carbon sources of energy.**

3. Building Energy Performance

A good deal of the city's electricity is consumed by buildings to supply space conditioning, followed by lighting.⁵ The high demand for space conditioning is attributed to both the local climate and the generally poor building envelope in Hong Kong.⁶ **The Government should strengthen the building energy codes for new and existing buildings.** In addition to improving energy performance of buildings during the use phase, the building itself can

¹ [IPCC, Global Warming of 1.5°C](#)

² [IPCC, Global Warming of 1.5°C](#)

³ [EPD, Greenhouse Gas Emissions in Hong Kong by Sector](#)

⁴ [IRENA, Onshore Wind Power Now as Affordable as Any Other Source, Solar to Halve by 2020](#)

⁵ [EMSD, Hong Kong Energy End-use Data 2018](#)

⁶ [Kwok, Y.T. et al., The influence of building envelope design on the thermal comfort of high-rise residential buildings in Hong Kong](#)



decarbonise. Building materials such as steel and concrete have embodied carbon that can make up for 20% of a building's lifecycle emission and as much as a-half in low-energy buildings.⁷ Given the degree of rapid urbanisation planned for Hong Kong, **the Government should require the construction industry to source alternative low-carbon or carbon sink building materials for new buildings.**^{8 9}

4. City Transportation

In Hong Kong, the transport sector contributes to around 18% of the local greenhouse gas emission in Hong Kong.¹⁰ Private cars in particular make up for 25% of the sector's energy demand.¹¹ However, private cars are an inefficient passenger carrier that only accounts for 12% of passenger trips of all kinds.¹² They also contribute to traffic congestion by taking up as much as 70% of road space on major roads.¹³ **The Government should curtail the city's dependence on private cars through policies such as implementing congestion pricing and low-emission zones and capping private car ownership.** At the same time, **the Government should electrify all public transports and align with international cities to plan for the retirement and banning of all vehicles with internal combustion engines.**^{14 15}

5. Sustainable Lifestyles

The Government currently only tracks local greenhouse gas emission. Hong Kong however is heavily dependent on imports to satisfy its high-consumption lifestyle. Under a consumption-based accounting approach, the city's per-capita emission is comparable to that of the United States.¹⁶ Hong Kong's consumption-based greenhouse gas emission largely comes from the populace's meat-heavy diet; pursuing a healthier diet would cut emissions by over 40%.¹⁷ Eating less meat also has the additional health benefit of reducing the risk of stroke, coronary diseases, type-2 diabetes, and colorectal cancer and avoiding as much as 2.4 million deaths worldwide.¹⁸ **The Government should promote healthy and sustainable diets and lifestyle**

⁷ [Williams, D. et al., Climate change influence on building lifecycle greenhouse gas emissions: Case study of a UK mixed-use development](#)

⁸ [Martchek, K.I., The Importance of Recycling to the Environmental Profile of Metal Products](#)

⁹ [Lou, Y. et al., Bamboo and Climate Change Mitigation](#)

¹⁰ [EPD, Greenhouse Gas Emissions in Hong Kong by Sector](#)

¹¹ [EMSD, Hong Kong Energy End-use Data 2018](#)

¹² [TD, Travel Characteristics Survey 2011 Final Report](#)

¹³ [Transport Advisory Committee, Report on Study of Road Traffic Congestion in Hong Kong](#)

¹⁴ [The Guardian, Amsterdam to ban petrol and diesel cars and motorbikes by 2030](#)

¹⁵ [BBC, Ireland to ban new petrol and diesel vehicles from 2030](#)

¹⁶ [Our World in Data, Global inequalities in CO₂ emissions, based on consumption](#)

¹⁷ [Yau, Y.Y. et al., Impact of cutting meat intake on hidden greenhouse gas emissions in an import-reliant city](#)

¹⁸ [Springman, M. et al., Health-motivated taxes on red and processed meat: A modelling study on optimal tax levels and associated health impacts](#)



choices to reduce consumption emissions.

6. Carbon Pricing

Carbon-emitting activities are subsidised directly by financial mechanisms like tax credits or indirectly by failing to price in the negative externalities of climate change. It is estimated that fossil fuels are subsidised at US\$5.2 trillion globally.¹⁹ Carbon pricing can act as a corrective measure, internalising the cost of not mitigating climate change. Today, around 40 countries and over 20 states and cities have implemented some form of carbon pricing.²⁰ The Government could consider including revenue-recycling mechanisms, such as tax rebates or funding green investments, to improve its desirability when implementing carbon pricing.²¹ **The Government should implement the most appropriate form of carbon pricing for Hong Kong.**

Adaptation

7. Coastal Infrastructure

Aside from mitigation, the Government should prepare for inevitable climate change impacts. Hong Kong—as a coastal city—is particularly susceptible to storm surges and heavy rainfall, which are expected to worsen under climate change. Although the city possesses hard coastal defence infrastructures, the Government has not incorporate flood risk management into their planning policies and practices. Cities around the world are adopting flood protection standards against 100-year floods. The Netherlands is making critical regions resilient against 1-in-10,000 year events.²² **The Government should also strive to strengthen coastal and flood resilience in Hong Kong.**

8. Sponge City Design

Heavy precipitation events will become more common. To cope with stormwater flooding in the inner city, China has put forward the sponge city concept to promote sustainable development. Instead of diverting surface water runoff, a sponge city aims to mimic the natural water cycle by capturing and controlling rainwater runoff within its own region. Sponge cities also incorporate a variety of green infrastructure such as green roofs, rain garden, retention tank, wetland, bioswale and eco-river channel to absorb excess rainwater and replenish underground water. **The Government should adopt the sponge city concept as a flood control design in urban**

¹⁹ [IME, Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates](#)

²⁰ [World Bank, Pricing Carbon](#)

²¹ [International Council on Mining & Metals, Options in recycling revenues generated through carbon pricing](#)

²² [New York Times, The Dutch Have Solutions to Rising Seas. The World Is Watching.](#)



areas.

9. Water Security

Water shortage may once again become a reality in the future. Over 60% of Hong Kong's freshwater supply currently comes from the Dongjiang River. Climate change will reduce the water availability of the river, creating future conflicts with other users.²³ **Hong Kong should explore new sources of water—such as seawater desalination and wastewater recycling—to enhance water security.**²⁴ In addition to developing new taps, the Government should also tackle the city's high water demand. It is estimated that around 15% of freshwater supplied is lost to leakages in public and private mains.²⁵ **The Government should expedite replacement of aged public distribution pipework and enforcing property owners to repair private mains.**

10. Climate Emergency Preparedness

Climate change is altering the frequency and severity of extreme weather events and vector-borne disease. Early warning and emergency response systems are crucial to identifying risks and vulnerabilities and formulating adaptation plans to enhance climate preparedness. **The Government should establish a climate change emergency response office to coordinate emergency preparedness across relevant departments.** In addition, **the Government should also collaborate with cities within the Greater Bay Area to exchange knowledge and resources on climate change adaptation.**

Green finance

11. Green Finance

Climate change mitigation and adaptation measures will add about US\$90 trillion to the world economy by 2030.²⁶ Transforming Hong Kong into a sustainable and liveable city will need significant investments into new infrastructures and technologies. Hong Kong has to incubate the local green finance human capital. **The Government should budget for green finance training and education for industry practitioners and the general public.** At the same time, **the Government should take advantage of the Greater Bay Area development and the Belt**

²³ [Hartley, K. et al., Political dynamics and water supply in Hong Kong](#)

²⁴ [Samblebe, M., Wastewater Re-use and Desalination](#)

²⁵ [WSD, Leakage Rate of Government Mains](#)

²⁶ [The New Climate Economy, The New Climate Economy 2016](#)



and Road Initiative to solidify Hong Kong as the regional leader in green finance.

High-profile fossil fuel divestments by large institutional actors also help to shift towards a low-carbon future. Today, over 1,000 institutions with portfolios worth almost US\$8 trillion (HK\$63 trillion) have pledged to stop investing in fossil fuels.²⁷ The Hong Kong Monetary Authority Investment Portfolio alone commands almost US\$0.5 trillion of assets.²⁸ **The Government should take lead to divest from fossil fuels.**

The green financing and investing ecosystem is driven by readiness of asset owners to integrate ESG considerations in their strategies. **The Government—specifically the Financial Secretary Office—should fully adopt the *Environmental, Social and Governance (ESG) Strategy for Hong Kong* by the Financial Services Development Council.**

The Securities and Futures Commission should take a ‘comply or explain’ approach for the *Principles of Responsible Ownership* in the near-term and mandating its adoption in the longer term.

The Hong Kong Monetary Authority should scale up the ESG requirements for their external investment managers.

²⁷ [Fossil Free, 1000 Divestment Commitments and Counting](#)

²⁸ [Willis Towers Watson, Thinking Ahead Institute reveals the “most influential capital on the planet”](#)