



The American Chamber of Commerce in Hong Kong

Response to the Council for Sustainable Development on Long-term Decarbonisation Strategy Public Engagement

September 2019

The American Chamber of Commerce in Hong Kong (AmCham) is the largest international chamber in Hong Kong and one of the largest American Chambers outside the US. Climate change is a major topic of interest for our members and we appreciate and support the public engagement exercise undertaken by the Council for Sustainable Development.

Decarbonisation is an issue that is likely to affect all businesses and individuals living in Hong Kong and it will be something on which we can all make our personal or corporate contributions. In this response, we suggest focusing on **four main areas** for carefully planned and progressive improvement, namely electricity generation, energy use in buildings, carbon emissions by the transport sector, as well as reducing waste and moving to a greener lifestyle.

AmCham recommends that Hong Kong progressively move away from coal to gas in generating electricity over the short to medium term but seek stronger regional cooperation to allow the sourcing of much more zero-carbon energy for the longer term. There will still be a role for local generation and support should be given to develop the best local renewable energy projects. Immediate policy support to facilitate the decarbonisation of transport should be provided, using electric vehicles as a clean and already proven technology suitable in most applications. Steps should be taken to reduce waste and make better economic use of the waste we may still create, seeing much of it as an opportunity and not a burden to be quietly put aside in landfills. Public education to encourage greener lifestyles would help businesses to bring forward more new lower carbon products and services and help Hong Kong prosper.

The initiatives suggested in each of these areas can also offer synergistic benefits – a very low carbon electricity supply can help with the deep decarbonisation of other sectors and increased energy efficiency in buildings will lead to lower and more competitive operating costs for businesses. Decarbonising transport will have major road-side air quality benefits and reducing waste and choosing a more sustainable lifestyle will have spin-off benefits across a broad spectrum of environmental concerns.

The Chamber believes that if we are to move in the right direction, a clear roadmap to decarbonisation needs to be set, with time for businesses to plan and adjust and appropriate support provided to enable transition. With strong support from business and the wider community, together with leadership from Government, we are confident that the necessary changes can be made to a lower carbon Hong Kong. Please refer to the **Appendix** for detailed recommendations. We would be happy to engage with the Administration going forward as plans are put in place and targets formulated.

Appendix – Detailed Recommendations

Introduction

The Chamber welcomes the launch of the public engagement process and document by the Council for Sustainable Development (CSD) on the long-term decarbonisation of Hong Kong.

Climate Change is one of the most important issues of our time and Hong Kong needs to play its part in tackling the challenges it poses, not only by reducing carbon emissions but also in making preparations to improve our city's resilience in dealing with its impact.

The public engagement document¹ identifies the major sources of terrestrial Greenhouse Gas (GHG) emissions from Hong Kong. According to the published inventory², electricity generation accounts for around 65%, the transport sector about 18%, the use of other fossil fuels and industrial processes equating to around 10% and waste 7%. Whilst this submission will concentrate on four main areas, the Chamber would also like to highlight an important part of the public engagement document - the importance of changes to lifestyles. Scope 3 emissions are not included in our city's inventory but much of the food and material goods we import will generate emissions elsewhere and lower-carbon lifestyles can help to lower these, which will also be of real benefit.

The Chamber would make one other important point: agriculture, forestry and other land use are responsible for just 0.1% of carbon emissions in Hong Kong. Other countries have turned these resources into a *negative* figure, with enhanced rural and urban planting to create carbon sinks. We suggest an immediate study to assess the potential for Hong Kong.

Focus Areas for Our Response

Electricity Generation

Around two-thirds of carbon emissions currently come from electricity generation, so decarbonising electricity supply is a key factor in decarbonising. AmCham supports government's policy of gradually phasing down the use of coal and increasing the use of gas and non-fossil fuels such as nuclear and Renewable Energy (RE) to enable the achievement of the 2030 carbon target already set for Hong Kong.

Looking beyond 2030 towards mid-century, the public engagement document suggests that much greater volumes of zero-carbon energy will be required to enable decarbonisation. That will require the phasing out of regular generation from coal and, since natural gas still emits carbon, either its replacement by RE and nuclear or retaining the option to remove carbon from gas generation through carbon capture & storage or the use of hydrogen created through zero carbon sources. Whilst these two latter technologies are being explored now, they are still very far from commercialisation. So, for planning purposes at the present time, we see the addition of much greater volumes of zero-carbon energy from RE and nuclear as the way forward for Hong Kong.

For businesses, as well as the wider community, electricity reliability is critical to support effective operations and the proper functioning of our city as a whole. The two power companies currently provide world-class supply reliability and any changes to the fuel mix must ensure that this is not put at risk. Energy costs are also important for business competitiveness, so changes should be made on a planned and gradual basis so the impact on tariffs can be better managed. Government may need to help smaller businesses (and the most vulnerable in our society) with the financial costs of transition.

¹ https://www.susdev.org.hk/download/pe_document_e.pdf

² https://www.climateready.gov.hk/files/pdf/2017_GHG_by_sector.pdf

Our suggestion is, therefore, to begin to plan for the importation of much more zero-carbon energy, through regional cooperation, which may include working with other cities in the Greater Bay Area. Whilst every encouragement should be given by government to local RE projects, given local constraints on natural resources and land availability and based on today's technologies, local production seems likely to be able to provide a limited supply. RE is intermittent in nature and to ensure reliability other forms of zero-carbon energy, which can be dispatched with certainty to meet customer demand, will also be needed. Around 25% of Hong Kong's entire power supply has been provided by relatively inexpensive nuclear electricity since the 1990s and as a stable and cost-effective zero-carbon energy source we suggest that additional supplies of nuclear together with imported RE, should provide the bulk of additional zero-carbon energy Hong Kong will need to decarbonise.

Implementation will pose challenges, as new interconnection will probably take at least 10 years to build and require strong support under the GBA initiative from governments on both sides of the border. The interconnection can be built to Hong Kong standards and operated by the two power companies. Local gas plants will also be needed, both to contribute to meeting the variable nature of customer demand but also to provide back up reliability when needed. Importantly, Hong Kong's two power companies should be able to negotiate directly with zero-carbon energy generators to enable the best negotiation leverage possible and provide certainty on the precise nature of the zero-carbon energy being imported. This is strongly preferred to the suggestion of just purchasing 'grid power' made in the 2014 public consultation on the electricity fuel mix.

Energy Efficiency and Fuel Use in Buildings

Almost 90% of electricity is used in buildings and, based on the 2018 EMSD energy end use statistics³, around 70% of all gas/LPG sales are made to non-transport applications such as for use in buildings. This means that every unit of gas or electricity saved in buildings can help with carbon reduction.

The Chamber supports government's Energy Saving Plan for Hong Kong's Built Environment⁴. This sets out key energy saving measures through to 2025 but it should now be developed through to the 2040s on a much more forward-looking basis. Policy standards, for both end-use appliances and the buildings themselves, should be progressively tightened. Government must support the adoption of new materials and building techniques in the Building Codes, to reduce both the embedded carbon in new buildings and improve the energy efficiency of all buildings.

Performance rating schemes for all buildings should be progressively tightened, and for the existing building stock incentives made available to allow both the retrofitting and the retro-commissioning of more energy efficient end use applications such as air-conditioning, lighting, lifts and elevators etc. New low emission technologies such as heat pumps, induction cooking and high-tech Building Management Systems must be supported. Under the BEEO, energy audits must be carried out every 10 years but the Energy Management Opportunities (EMOs) identified in these audits do not need to be implemented. Government incentives should be provided from 2020 onwards as a pump primer to ensure the implementation of the most significant EMOs before the next audit is due. At the same time, it should consult with the industry and key stakeholders on making the implementation compulsory from around 2030, without government grant aid, as a requirement under an amended Ordinance. This would ensure both an incentive for early action and a penalty for those who fail to take advantage of the best opportunities on an early basis.

Transportation

This sector represents around 18% of Hong Kong's terrestrial emissions. Whilst aviation and marine transportation are in general not included within the scope of the current public engagement exercise, we suggest providing support to logistics facilities and operators to electrify operations whenever possible to reduce both carbon and air emissions, with electric short distance ferries, port operations,

³ https://www.emsd.gov.hk/filemanager/en/content_762/HKEEUD2018.pdf

⁴ <https://www.enb.gov.hk/sites/default/files/pdf/EnergySavingPlanEn.pdf>

shore to ship power and cargo handling facilities. LNG bunkering for local vessels would also reduce emissions compared to current fuel use.

For land transport, AmCham supports government's policy of a 'rail first' approach for mass public transport. Additionally, steps should be taken quickly (as they have in Mainland and overseas cities) to move to low emissions buses for road-based mass public transit. The current very limited trials for electric minibus and larger public buses should be expanded, together with the provision of a more comprehensive charging network. In the case of light duty cars and vans, electric vehicle technology is already proven and offers both lower carbon emissions (even at today's electricity carbon intensity) and zero roadside air emissions, an important health issue in Hong Kong. Government should consider a range of policy measures to significantly increase take-up, which has slowed since the abolition of the original First Registration Tax incentives in 2017. These may include not only capital cost incentives for companies and individuals but also tax and other support for the wider installation of charging networks and introducing time limits on the registration of new Internal Combustion Engine cars, say by the mid-2030s as other cities have done⁵. For heavy goods vehicles, technology options are not yet mature and further study is needed.

Other supporting measures to encourage a greener lifestyle for transportation, such as better planning for walking and cycling routes, and easier to use transportation interchanges should also be introduced.

Waste Reduction and Greener Lifestyles

Waste accounts for about 7% of Hong Kong's GHG emissions. Whilst utility companies such as Towngas and CLP Power are working to capture and use the emissions from landfills, effort needs to be made to maximise the economic value of waste through both better recycling programmes (with more practical support to establish a viable local industry and expanded public education campaigns) and extension of the initial government projects to support waste-to-energy generation. These include MSW incineration, sludge treatment (including the use of biogas) and organic waste treatment.

As noted previously, encouraging businesses and individuals to adopt lower carbon lifestyles is important. The Chamber suggests that a long-term programme of public education will be needed: this will support businesses to build customer demand as they introduce a much greater range of new low carbon products and services to the public.

Setting a Carbon Reduction Target for Hong Kong

Hong Kong's current 2020 and 2030 carbon reduction targets are based on a "carbon intensity" approach, which could allow emissions to increase as GDP grows. In line with the targets now being adopted by almost all developed economies, we recommend that in setting a longer-term target, such as that for 2050, a "carbon emissions absolute reduction" target is used.

In the public engagement document the CSD identifies 3 scenarios: a reduction in emissions of around 60% (over a 2005 base), a reduction of around 80% or moving to a net zero-carbon approach. All of these are predicated on significant changes to the way in which electricity is generated, buildings are managed, transportation operates and businesses and lifestyle decisions are taken. AmCham believes that a minimum target of at least 60% should be set, in line with the commitment to Paris Agreement's move to limit temperature rises to 2°C, but that Hong Kong should set out an aspiration to move closer to or even reach the 80% level. In setting a particular value, we suggest the CSD recommend a 'range' approach, with both a minimum (60%) level and a more aspirational (80%) level. The Paris Agreement calls for all countries to adopt a 5-year review process, so this would enable an uplift to these targets or a narrowing of range in future, once we can evaluate early progress and see how new or emerging technologies could be used to facilitate further decarbonisation.

⁵ https://en.wikipedia.org/wiki/Phase-out_of_fossil_fuel_vehicles

The CSD notes⁶ that achieving a ‘net zero’ target by 2050 would require mandatory changes to lifestyles and business operations, rigorous (but as yet unknown) technological breakthroughs and 100% zero-carbon energy (which in today’s technology terms means almost all electricity being imported from the Mainland). The Chamber believes that getting backing from society now, for all these changes, would be extremely difficult.

Response to the Public Engagement Document

The Chamber has decided to make this an integrated and substantive response to the issues raised by the CSD in its public engagement document. We have not therefore completed the multiple choice and open-ended questions in the response form. In respect of the specific closed questions in the response (Questions 1 to 3) our submission is that we support the allocation of resources to gradually phase out the use of fossil fuels (Q1). We believe that in changing the long-term fuel mix for Hong Kong, supply reliability and then the security and availability of supply are the most important factors, followed by environmental performance and affordability (Q2). The most important *single* measure to enable deep decarbonisation would be to increase the proportion of zero-carbon energy in Hong Kong’s fuel mix, most likely through regional cooperation (Q3). We must do this in a way that supply reliability is maintained and costs are managed carefully to maintain the support and trust of the wider community.

Conclusion and Next Steps

AmCham supports the CSD’s public engagement approach – reducing carbon emissions is an important factor in mitigating global warming and Hong Kong needs to play its part.

For electricity generation, whilst stressing the need to ensure world-class supply reliability and manage the costs of the transition to low carbon, the Chamber suggests continuing to increase the use of more gas and use less coal in the short to medium term but develop a stronger approach to regional cooperation in the longer term, in a way that retains local control of supply reliability and costs. This is a key enabler of deeper decarbonisation, which would be in parallel with the development of the GBA as a quality living area.

At the same time, the energy efficiency of buildings (and all the end-use application of fuels within them such as with power, gas or oil) should also be seen as a priority for improvement. Reducing water use of, and the waste produced from, buildings are also important priorities.

Other countries (such as the US and UK) have already seen that although the energy sector can steadily decarbonise, the transportation sector poses greater challenges for decarbonisation. It will take longer but if no action is taken, it will be the single largest contributor to carbon emissions, as it is already in these two countries. An early start needs to be made now, using proven technologies already available today, such as the widespread introduction of electric vehicles and the phasing out of internal combustion engines. This can be supported by the extension of Hong Kong’s “Rail First” policy, to spur economic development in new areas and other policy measures to increase transport efficiency.

Carbon reduction will affect everyone in Hong Kong – in how we make our lifestyle choices at home and in business, how we travel, the energy we use and in what waste we create. Making these choices will often be difficult and ongoing public education will be vital. All sectors of our society and our economy must do their part and government will have to take the lead in setting the overall direction. This will need coordinated action from all policy bureaux within government, without gaps which would lead to delayed or incomplete adoptions of policy measures. Businesses will need time to adjust and financial help with the transition, in a framework of a stable and clear long-term policy direction. We would welcome the chance to engage more with the CSD as it finalises its recommendation to government and with the Administration as it considers how to move forward thereafter.

⁶ https://www.susdev.org.hk/download/pe_document_e.pdf – page 20.