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Responses to *Hong Kong's Climate Change Strategy and Action Agenda - Consultation Document*

1. In the *Consultation Document*, the HKSAR Government proposes a target to reduce the carbon intensity by 50-60% by 2020 based on the 2005 level. By adopting the ambitious target, Hong Kong will set a good example as a responsible international city making an effort to combat climate change.

2. In the *Consultation Document*, the Government recommends a number of carbon reduction measures for achieving the target. One of the recommendations is to increase the imported nuclear electricity from the present 23% to 50% by 2020. Nuclear energy is clean in terms of zero greenhouse gas (GHG) emission during the plant operation and the present cost of nuclear electricity is competitive. However, the nuclear fuel, namely uranium, is finite and not sustainable. The cost of uranium will rise as it will be depleted. Nuclear energy is an intermediate solution to our GHG emission problem.

   Renewable energy is the long-term sustainable solution. The historical data show that the cost of electricity generated from renewable energy sources is reducing continually as more advanced renewable energy technologies and innovations are developed and become commercially available. Wind turbines, biofuels and solar thermal power plants are particularly promising. The Government should estimate the future development trends and project the transition from nuclear energy to renewable energy in Hong Kong.

3. The Energy Information Administration (EIA) estimates that worldwide electricity generated from wind power will account for 6% of the world electricity generated in 2020. In comparison, the use of renewable energy in Hong Kong is low as the two windfarms under study by the two local electric utilities could only supply for 1-2% of the electricity demand in Hong Kong. The Government should have specific strategic plans to give more financial

supports and policy incentives for the development and implementation of renewable energy in Hong Kong.

4. There are many opportunities to save energy and cut GHG emissions by effective demand side management (DSM) in Hong Kong.

   Based on the *Hong Kong Energy End-Use Data 2010*, the annual electricity consumption for air-conditioning accounts for 26% of the total energy consumption in buildings in Hong Kong. In the *Consultation Document*, district cooling is recommended to increase the energy efficiency in air-conditioning for the commercial sector.

   District cooling is also applicable to the residential sector. There are successful overseas examples. Each household can be billed based on the consumption of chilled water. The residential users can also save considerable amount of money because the charge each domestic household shares for the use of a large-scale district cooling system will be lower than the expenditures for purchase, electricity consumption and maintenance of its own window-type and split-type air-conditioners.

5. Besides cooling for air-conditioning, heating for hot water and cooking is also important, accounting for 26% of the total energy consumption in buildings. The energy efficiency of both cooling and heating supplies can be increased by using a heat-pump district cooling and heating system to fully utilize the thermal energy transfer within a district and minimize any waste heat rejected to the ambient environment. There are successful overseas examples of district cooling and heating systems for reference.

6. The Government has been promoting public awareness on energy saving for years. Still, in our daily life, we often observe inefficient use of energy, e.g. low temperature setting in air-conditioned environment, lamps turned on in unoccupied areas, computers in offices left on after work, etc.

   Effective housekeeping and DSM for achieving energy conservation and high energy efficiency are perhaps the most practical ways to help reduce our GHG emissions immediately. DSM highly depends on the awareness and participation of the general public. Therefore, the Government should actively promote effective energy saving tips via various media to reach out to the citizens of all ages.

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