

Legislative Council
Subcommittee on Seventh Technical Memorandum for Allocation
of Emission Allowances in Respect of Specified Licences

Response to Follow-up Action
Arising from the Discussion at the Meeting on 31 October 2017

In response to the discussion at the meeting of 31 October 2017 on the Seventh Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences, the Administration has to provide the following information:

- (a) to address the concern raised by Hon WU Chi-wai regarding the Administration's environmental targets for 2020 to achieve emission reductions, taking into account the emissions by the local power plants as well as emissions by other sources, and measures taken to achieve the targets set; and
- (b) the additional cost per unit of electricity arising from the capital investment of \$4.1 billion and \$5.5 billion for building new gas-fired units (Unit L11 and Unit D1) by the Hongkong Electric Company and CLP Power Hong Kong Limited respectively.

The Administration's response is set out below:

- (a) In 2012, the Hong Kong SAR Government and Guangdong Provincial Government adopted a set of emission reduction targets/ranges for four major air pollutants in Hong Kong and Pearl River Delta Economic Zone (PRDEZ) for 2015 and 2020 as shown in the table below and agreed to conduct a mid-term review in 2015 to finalise the emission reduction targets for 2020. The mid-term review study is about to complete and we expect to announce the results by end of this year.

Pollutant	Area	2015 Emission Reduction Targets*	2020 Emission Reduction Ranges*
Sulphur dioxide	HKSAR	-25%	-35% ~ -75%
	PRD Economic Zone	-16%	-20% ~ -35%
Nitrogen oxides	HKSAR	-10%	-20% ~ -30%
	PRD Economic Zone	-18%	-20% ~ -40%
Respirable	HKSAR	-10%	-15% ~ -40%

suspended particulates	PRD Economic Zone	-10%	-15% ~ -25%
Volatile organic compounds	HKSAR	-5%	-15%
	PRD Economic Zone	-10%	-15% ~ -25%

* As compared with 2010 emission levels

2. To achieve the emission reduction targets set for 2015 and 2020, the two governments are implementing emission reduction measures focusing on major emission sources with a view to bringing continuous improvement to regional air quality. Key emission reduction measures being implemented in Hong Kong include tightening of vehicle emission standards, phasing out highly polluting commercial diesel vehicles, strengthening inspection and maintenance of petrol and liquefied petroleum gas vehicles, requiring ocean-going vessels to switch to using low sulphur fuel while at berth, tightening the sulphur content of locally supplied marine diesel, controlling emissions from non-road mobile machinery, controlling VOC contents of products used in printing and construction industry, and further tightening of emission caps on power plants and increasing use of clean energy for electricity generation.

3. The emission caps for the power stations set in the Seventh Technical Memorandum have taken into account the progress of new gas-fired units to increase the local gas generation to around 50% of the total fuel mix for electricity generation by 2020 (2020 Fuel Mix Target), which is one of the key measures to meet the 2020 emission reduction targets.

- (b) Unit D1 of CLP Power Hong Kong Limited (CLP) and Unit L11 of the Hongkong Electric Company, Limited (HKE) will be commissioned in 2020 and 2022 respectively. The tariff impact of these gas-fired generating units (“gas units”) will be subject to a number of critical factors, such as operating costs, sales volume, fuel prices and balances of the Tariff Stabilisation Fund and the Fuel Clause Recovery Account. Hence, at this stage, we are unable to make a meaningful tariff impact assessment on these new gas units from 2020 and onwards. We estimate that the tariff impact of these new gas units before their operation is not significant as they are still under construction and without the need to incur additional fuel costs. Based on our rough estimates, the impact of

Unit L11 on the HKE's tariff will be about 0.3 per cent for 2018, while the impact of Unit D1 on CLP's tariff will be about 0.4 per cent for 2018.

Environment Bureau / Environmental Protection Department
November 2017