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

Response to Submissions received by the Subcommittee

We note that the 13 submissions received by the Subcommittee generally agree to further tighten the emission caps of power plants with a view to continuously improving the air quality. Our responses to views and suggestions expressed in the submissions are as follows:

Tariff Impact of the Seventh Technical Memorandum

The Government's energy policy is to ensure that electricity demand of the community is met safely, reliably and at affordable prices, while minimising the environmental impact of electricity generation. When formulating measures on reducing emissions, we endeavor to balance these policy objectives, act in the general public interest and take into account the affordability of the community.

There are established mechanisms under the current Scheme of Control Agreements (SCAs) to examine the capital investments and tariff proposals submitted by the power companies and to monitor the power companies' fuel procurement. In accordance with the SCAs, the power companies have to submit Development Plans to the Government regularly for approval of their capital investment proposals. With the support of an independent energy consultant, the Government will critically examine the need, timing and cost effectiveness etc. of the capital investment proposals in order to avoid excessive, premature or unnecessary investments. In examining the capital investment proposals, the Government will take into account a host of relevant factors, including public acceptance of the tariff impact, operating conditions of existing generating units and future electricity demand etc. Regarding forecast of electricity demand, the power companies will consider a host of factors, including economic growth forecast, population growth forecast, development of industrial and commercial sectors, development of large-scale infrastructure projects and ancillary facilities as well as historical trend of electricity demand, in making their forecasts. The power companies will also take into account the electricity demand of different customer categories (such as residential, industrial & commercial and government etc.) and the Government's various energy efficiency policies and measures. The Government will make reference to various information in assessing the electricity demand forecasts provided by the power companies, including the independent electricity demand forecasts conducted by the independent energy consultant and the Government Economist, to review the data provided by the power companies in order to ensure that their electricity demand forecasts are reasonable. The Government will also review the tariff proposals submitted by the power companies every year to ensure that the electricity tariff is maintained at a reasonable level and protect consumers' interest. In addition, the Government has been exercising due diligence in monitoring the power companies' fuel procurement. In the annual Auditing Review exercise, the Government checks that the power companies have proper procurement policy and procedures in place. Besides, with the help of an independent consultant, the Government scrutinises long-term fuel contracts before approving them to ensure that they are in line with international fuel market trends and practices.

The two power companies will each construct a new gas-fired generating unit (gas unit), viz. Unit L11 of the Hongkong Electric Company, Limited (HKE) and Unit D1 of CLP Power Hong Kong Limited (CLP). The construction of these new gas units would allow the power companies to achieve the proposed emission allowances under the Seventh Technical Memorandum for 2022 and onwards. HKE estimated that the capital investment for building Unit L11 is around $4.1 billion, while CLP estimated that the capital investment for building Unit D1 is around $5.5 billion. As how the increase in capital investment will be reflected in the tariff will be subject to a number of factors (such as future fuel costs, progress of capital investments, operating costs, sales volume and future changes in balances of the Tariff Stabilisation Fund and the Fuel Clause Recovery Account), we are unable to make a concrete assessment on the tariff impact of the construction of the two gas units from 2022 and onwards. But based on our rough estimates, for 2018, the impact of Unit L11 on the HKE's tariff will be about 0.3 percent while that of Unit D1 on CLP's tariff will be about 0.4 percent.

The Government will, acting in the general public interest, continue to exercise due diligence in monitoring the power companies under the SCAs to safeguard the interests of consumers.

Increasing Use of Natural Gas

Taking into account the public views received during the Consultation on Fuel Mix for Electricity Generation conducted in 2014, we announced in 2015 our fuel mix target for 2020, whereby local gas generation will be increased to around 50% of the total fuel mix. To tie in with our efforts of combating climate change, the power companies will further gradually replace most of the electricity generated from the coal-fired plants with natural gas and non-fossil fuels by 2030.

The two power companies have been actively discussing with their suppliers to explore new sources of natural gas. They are also examining the feasibility of using a floating storage regasification unit (FSRU) in order to strengthen the stable supplies of natural gas in future and increase their bargaining power in their fuel procurement. The Government adopts an open position on any proposals which would help increase natural gas supply and benefit the public. Subject to the passing of the Environmental Impact Assessment study and after the submission of detailed project proposal by the power companies, we will assess the project proposal according to the established mechanism so as to safeguard the interests of consumers.

Promoting the Development of Renewable Energy (RE)

The Government is actively promoting the development of RE.

The Government will take the lead to continue to apply RE on a wider and larger scale based on mature and commercially available technologies with the public sector taking the lead. We have raised targets of use of RE in new schools, Government buildings, open spaces and parks, and will use the earmarked $200 million for the provision of RE installation at existing Government buildings, venues and facilities.

In addition, the Water Supplies Department (WSD) commissioned its first pilot floating solar power system at Shek Pik Reservoir in February

2017, while its second pilot project at Plover Cove Reservoir will commence operation in end-2017. WSD has engaged a consultant to review the technical findings in respect of the pilot projects and study the feasibility and strategy of implementation of floating solar farms on a larger scale at suitable impounding reservoirs. The consultancy study is expected to complete by end-2017. In addition, the Electrical and Mechanical Services Department (EMSD) has commissioned a study on the promotion of photovoltaic installation taking into account the potential, barriers and constraints identified. It will enable Hong Kong to have a more in depth discussion on the subject.

We are also creating the conditions to enable the private sector to consider adopting RE. At present, deduction under profits tax for 20 per cent of the capital expenditure incurred on the acquisition of environment-friendly installations (including RE installations) will be provided in each of the five consecutive years starting from the year of purchase. Moreover, the Government entered into the post-2018 SCAs with the two power companies in April 2017 and promotion of RE is a key focus. Under the new SCAs, in addition to putting in place incentive schemes to encourage the power companies to develop RE and facilitate the development of distributed RE, Feed-in Tariff (FiT) will be introduced to encourage the private sector and community to consider investing in distributed RE. When setting the FiT rate(s), we will take into account factors including the cost of investments in the distributed RE systems and generation, the attractiveness of the rate(s) in providing sufficient incentives to encourage the private sector and the community to consider investing in distributed RE, as well as the tariff implications. We are now discussing with the two power companies details of the FiT scheme and plan to report the detailed arrangements to the Energy Advisory Committee and the Legislative Council in the first half of 2018, with a view to launching the scheme as soon as practicable after the new SCAs come into effect.

Promoting Energy Efficiency and Conservation (EE&C)

The Government has been actively promoting energy saving through various measures. The Government announced in 2015 the "Energy Saving Plan for Hong Kong's Built Environment 2015~2025+", setting out our target to reduce energy intensity by 40% by 2025 using 2005 as the base. To achieve this target, all sectors of the community will need to work together. To lead by example, the Government has pledged to reduce electricity consumption by 5% for government buildings in five fiscal years from 2015-16 to 2019-20, using the comparable operating conditions in 2013-14 as the base. On promoting energy saving in private buildings, we have commenced a review on the Building Energy Code under the Buildings Energy Efficiency Ordinance, with a view to further increasing the energy efficiency standards of major building installations. The revised Building Energy Code is planned to be promulgated in 2018.

To promote energy-efficient living, we have amended the legislation in November 2017 to cover five additional products in the Mandatory Energy Efficiency Labelling Scheme (MEELS), namely televisions, electric storage water heaters, induction cookers, washing machines (with a rated washing capacity exceeding 7 kg but not exceeding 10 kg), and room air conditioners of reverse cycle type (i.e. with both heating and cooling functions). The total amount of energy saved from the expanded MEELS is expected to be about 600 million kWh per annum.

The Environment Bureau and the EMSD have been holding the "Energy Saving for All" Campaign since 2015 to enhance the cooperation among the Government, the private sector, non-Government organisations, schools and tertiary institutions and promote energy saving. The Government continues to organise the "Energy Saving for All" Campaign in 2017. Over 3 300 organisations have signed up to the "Energy Saving Charter 2017" and pledged to adopt the energy saving practices. In addition, over 1 000 premises have pledged to set an energy-saving target with a timeline and ensure transparency to track the energy saving result.

The power companies also play an important role in promoting energy saving. Under the new SCAs, existing incentive schemes in relation to promotion of EE&C will be expanded while new elements will be introduced. More funds will be available under the existing energy efficiency funds of the power companies to support the carrying out of retrofitting and retro-commissioning, including the implementation of building-based smart/IT technologies to enhance the energy efficiency of a wider coverage of buildings. In addition, we will work with the power companies to introduce new energy saving funds to further support other EE&C programmes and to expand the scope of the energy saving loan funds.

Environment Bureau / Environmental Protection Department
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