

For information
on 22 December 2016

AQO REVIEW WORKING GROUP
PROGRESS REPORT

PURPOSE

This paper updates Members on the progress of the review of the Air Quality Objectives (AQO).

PROGRESS

2. Since the formation of the Working Group in May 2016, all its four sub-groups, particularly the three sub-groups have been exploring new air quality improvement measures in respect of marine transportation, road transportation, as well as energy and power generation, with a view to completing their work by the end of March 2017. Members have been participating in the deliberation in earnest and with keen interest. All sub-groups will have to consider holding extra or longer meetings to complete their work on schedule. However, the extra effort may not suffice for the Road Transportation Sub-group, which still have 28 new measures to deliberate. It might run into a delay of two months. To make it up, the Air and Health Sub-group, which has been working on the groundwork for their evaluation work, might have to start working on those measures that have been deliberated instead of waiting until the completion of the deliberation for all the measures. The deliberation of the sub-groups is summarized in the ensuing paragraphs.

Marine Transportation Sub-group

3. The sub-group has identified 18 air quality improvement measures under four categories namely “Use of clean fuel”, “Technical measures” and “Fuel economy, energy efficiency and port management” and “Other suggestions”. Details of the measures are in **Annex A**.

4. The sub-group has now completed its deliberation for the seven measures under the first category, which include liquefied natural gas (LNG), low sulphur fuel with sulphur content not exceeding 0.1%, alternative fuels such as biofuel, fuel cell and methanol, hybrid, diesel electric and electric drives, on-shore power supply (OPS) for local, river trade and ocean going vessels (OGVs). Most of them have been found to be impracticable within the time horizon agreed for the AQO Review. The remaining measures will be discussed in future meetings of the sub-group.

Use of LNG in marine vessels

5. While there is an increasing trend worldwide in ordering new LNG vessels for complying with the stringent emission requirements (including the carbon emissions), the downturn of the marine business does not make it likely that the number of LNG vessels calling Hong Kong will increase in the near future. Although the lack of LNG bunkering facilities here might not be a major hurdle for the visit of LNG vessels, the sub-group sees it advisable for Hong Kong to watch closely the relevant development for taking timely actions to get Hong Kong prepared to serve LNG vessels, particularly the use of LNG by river trade vessels plying the Pearl River Delta (PRD) waters and turning Hong Kong as a regional LNG bunkering hub.

OGVs at berth to use marine diesel with lower fuel sulphur content, e.g. not exceeding 0.1%

6. In the interests of port competitiveness and emission benefits, the sub-group prefers this measure, if practicable, to be pursued on a regional basis (i.e. at least in the whole PRD region). The practicability of this measure is contingent upon the availability of the compliant fuel not only here but also in other ports. In this connection, the sub-group noted that Hong Kong is working jointly with the Mainland on establishing a marine domestic emission control area (DECA) in PRD waters and the Ministry of Transport (MoT) will complete a review of the DECA requirements by 2019. Given that the International Maritime Organization (IMO) has already announced in October 2016 to cap the

sulphur content of marine fuel at 0.5% by 2020, there is a fair chance that the fuel sulphur limit for the PRD DECA will be further tightened to 0.1% in 2020. As such, the sub-group consider it necessary for the Government to watch closely the relevant development for the benefit of the AQO Review.

OGVs to use On-shore Power Supply (OPS) while at berth

7. The sub-group considers the lack of space for installing On-shore Power Supply (OPS) facilities and a unified OPS standard at container terminals major obstacles to the adoption of OPS. Noting that the Kai Tai Cruise Terminal has reserved space for the installation of OPS, it was of the view that the Government should continue watching closely the international and regional development in the use of OPS for cruise ships so that the provision of OPS can be revisited timely.

River trade vessels to use OPS while at berth at terminals

8. Unlike OGVs, the installation of OPS at the river trade terminals is considered impracticable for river trade vessels (RTVs) because of their quick turnaround time and the lack of space at terminals for installing OPS.

Local Vessels to use electricity from the power grid while at berth

9. The sub-group noted that some of the local vessel operators have been getting electricity from the dockside to power the on-board electrical appliance. The proposed measure indeed is not a new measure.

Road Transportation Sub-group

10. The Road Transportation sub-group has identified 35 air quality improvement measures, which are broadly classified into eight categories. Details of the Measures are in **Annex B**.

11. The sub-group has completed its deliberations for seven measures under two categories “Tunnel toll policy and toll collection method” and

“Maintenance and repair of vehicle exhaust system”. The measure “Review the tunnel toll policy and level” has been found to be a long term measure, whereas “Raise awareness on the importance of vehicle maintenance and repair” has already been undertaken by the Environmental Protection Department (EPD). The initiative “Establish a maintenance information database of vehicle tailpipe emission system” is considered to be practicable. The other four measures discussed have been found to be unjustified for implementation or not practicable within the time horizon agreed for the AQO review. The remaining 28 measures will be discussed in future meetings of the sub-group.

Review the tunnel toll policy and level

12. Noting that the Government has a plan to engage a consultancy study on the overall strategy and feasible options for the rationalization of traffic distribution among the three road harbour crossings (RHCs), and to submit toll adjustment proposals covering the three RHCs to the Legislative Council Panel on Transport for discussion within the 2017-18 legislative year, the sub-group has suggested that the Government should take into account its views in the formulation of the proposals. The sub-group opined that this measure is a long term initiative.

Replacing the existing system with complete automatic toll collection system

13. The sub-group noted that tunnel traffic congestion is often caused by traffic volume exceeding the design capacity of some tunnels, and has no direct correlation with how tunnel tolls are collected. The sub-group has agreed not to further pursue this measure.

Maintenance and repair of vehicle exhaust system

14. Noting that the current vehicle emission control programmes (e.g. the Smoky Vehicle Control Programme for Diesel Commercial Vehicles and the Remote Sensing Scheme for LPG and Petrol Vehicles) have reduced smoky diesel vehicles and excessively emitting petrol and LPG vehicles to a minority in their own vehicle fleets, the sub-group considers that requiring all vehicles to

undergo mandatory dynamometer tests during vehicle roadworthiness examination and lowering the age for private cars to undertake annual vehicle roadworthiness examination would unlikely bring along significant benefits to roadside air quality. It has thus recommended against the two measures and opined that the Government should consider actions targeting direct gross emitters if additional actions are warranted. As for the measure “Providing rental service of vehicle tailpipe emission testing equipment to small and medium sized repair workshops”, the sub-group noted that vehicle tailpipe emission testing equipment affordable by the trade, such as portable five-gas analyzer and smoke meters, is already common tools in vehicle repair workshop. As for more advanced diagnostic equipment, the sub-group has noted that specialist diagnostic services for vehicles of advanced engine design, particularly diesel ones, are now available on the market. Furthermore, the proposed measure is also uncommon elsewhere. As such, the sub-group has thus recommended against it.

Establish a maintenance information database of vehicle tailpipe emission system

15. Noting that vehicle manufacturers will have to provide access to maintenance information for new vehicle models at reasonable costs and that the EPD has been organizing vehicle maintenance seminars in collaboration with the Vocational Training Council (VTC), vehicle manufacturers and vehicle maintenance trade associations, which the vehicle maintenance trade considers useful, the sub-group recommends the EPD continuing the effort.

Raising awareness on the importance of vehicle maintenance and repair

16. The sub-group has noted that the vehicle maintenance trade is suffering from aging technician and the trade had difficulty in dealing with the advancement of technologies in repairing the latest model of vehicles. Therefore, the sub-group advised the EPD to continue its on-going collaborative efforts with VTC, repair trade and vehicle manufacturers in organizing seminars and workshops to help the vehicle repair trade to meet the advancement of vehicle technologies and to cope with the aging workforce and shortage of

skilled technicians. In addition, EPD will continue to promote proper vehicle maintenance to the user groups such as owners and fleet managers through ECO-Driving seminars.

Energy & Power Generation Sub-group

17. This sub-group has drawn up 15 air quality improvement measures (details in **Annex C**), which cover both demand side energy management (e.g. energy saving and building energy efficiency) and the supply side management (e.g. use of renewable energy and revamping fuel mix for electricity generation). The sub-group has now completed its deliberation for the seven measures under “Building energy efficiency measures”, “Fuel mix for electricity generation” and “Power generation”. These seven measures, in fact, have already been progressively implemented by the Government under its prevailing energy policy with a view to attaining the relevant targets for carbon reduction, energy saving and energy mix for electricity generation. The remaining measures will be discussed in future meetings of the sub-group.

Fuel mix for electricity generation

18. The sub-group also noted that the Government is studying the long term carbon emission reduction target in Hong Kong. One of the important factors it will consider is the long term fuel mix of Hong Kong, including phasing down of coal-fired generating units with cleaner energy source such as natural gas-fired generating units as the former reach their normal retirement life. There was a consensus in the sub-group that in considering the fuel mix plan, the Government shall take into account the four energy policy objectives, i.e. safety, reliability, affordability and environmental protection.

Power generation

19. The sub-group noted that the power companies would, as part of their on-going care and upkeep of their generating units, identify potential of enhancing fuel efficiency and emission performance of their generating units in their upgrading projects. The Government would consider power companies’

proposals of upgrading burners of gas-fired generating units on a case-by-case basis, taking into account all relevant factors, including cost implication, the service life, operating conditions and maintenance schedule of existing gas-fired generating units as well as technology advancement in fuel efficiency and emission performance, etc.

20. As for the measure “Review operations of gas-fired power generating units with a view to identifying further emission reduction potential”, the sub-group has noted the technical and operational constraints in the operation of existing gas-fired generating units and that there is limited scope to increase their operations with a view to further reducing emissions from power plants.

Building energy efficiency measures

21. The sub-group concurred with Government’s “Energy Saving Plan” which sets a target of reducing Hong Kong energy intensity by 40% by 2025 and the various policy measures to engage the community, including the commercial and non-government sectors to work together for energy saving.

Air Science and Health Sub-group

22. The sub-group has agreed that the AQOs should be benchmarked against the World Health Organization’s (WHO) Air Quality Guidelines (AQGs) and the Global Update 2005, and the air quality at year 2025 will be evaluated with the implementation of the air quality improvement measures proposed by the other three sub-groups. The general approach and tools of the assessment of air quality, health and economic impacts have also been discussed among the air experts.

23. In order to have more in-depth discussions on the air quality assessment and health impact evaluation, two task forces would be formed under the sub-group, namely “Emission Reduction Estimation and Air Quality Modelling Task Force” and “Health & Economic Impact Assessments Task Force” to focus on the technical issues such as the tools, approach and assessment methods for

evaluating the scope of tightening the AQOs. Interested members of the sub-group are welcome to participate in these two task forces.

New Air Quality Improvement Measures on Other Sources

24. During the deliberation of the sub-groups, some Members have put forward their views on the control of Volatile Organic Compounds (VOC) containing products. EPD will explore further on VOC emission control measures and other sources with a view of practicability of implementation.

WAY FORWARD

25. As reported above, the progress of the AQO Review is largely on track though extra meetings will have to be held for those three sub-groups working on measures and the air science and health sub-group will have to start on measures that have already been deliberated to expedite the process. A tentative meeting schedule of the sub-groups in 2017 is at **Annex D**. We aim at consolidating the review findings and assessment results of the Working Group by end of 2017.

ADVICE SOUGHT

26. Members are invited to take note of the contents in this paper.

**Environment Bureau / Environmental Protection Department
December 2016**

**Proposed new air quality improvement measures in
Marine Transportation Sub-group**

Proposed new air quality improvement measures	Assessment
A. Use of clean fuel	
1. Explore the use of Liquefied Natural Gas (LNG) for marine vessels	No imminent need for bunkering facilities in Hong Kong. The development will be kept in view to get Hong Kong prepared to serve LNG vessels.
2. Explore the use of biofuel (e.g. B5), fuel cell, hybrid power, Liquefied Petroleum Gas (LPG), compressed natural gas (CNG), methanol, nuclear and renewable energy, e.g. wind and solar energy, etc. for marine vessels	The measure is not practicable as these alternative fuels are unlikely to be developed as the mainstream fuels for vessels in the time frame of this AQO review.
3. Explore the use of hybrid, diesel electric and electric vessels	Because of high investment cost and a number of operational constraints, it is unlikely that these technologies will be widely adopted in local vessel operations in the near future. The Government will watch for the technology development and practicability for adoption in local marine applications.
4. Ocean-going vessels (OGVs) at berth to use marine diesel with lower fuel sulphur content, e.g. not exceeding 0.1%.	It could be practicable if the compliant fuel becomes widely available in the PRD region. In terms of port competitiveness and emission benefits, it would be advantageous if the initiative is pursued on a regional approach.
5. Local vessels to use electricity from the power grid while at berth.	This is not a new measure and operators of local vessel companies can approach the power companies for setting up the power supply installations at piers, provided that

Proposed new air quality improvement measures	Assessment
	the space and safety requirements could be satisfied.
6. River trade vessels to use OPS while at berth at terminals	The measure is not practicable given the quick turnaround time of river trade vessels and the lack of space at terminals for the installation of the OPS.
7. OGVs to use OPS while at berth	The measure is not practicable at container terminals given the lack of space for the installation of the OPS and a unified standard for OPS. The Government will watch for the international and regional development in the use of OPS for cruise ships.
<i>B. Technical measures</i>	
1. Impose emission standards on outboard engines of pleasure crafts.	#
2. Install emission reduction device (e.g. particulate filters) to reduce particulate matters (PM) emitted from local vessels.	#
3. Impose control on nitrogen oxides (NOx) emissions from engines of local vessels.	#
<i>C. Fuel economy, energy efficiency, and port management</i>	
1. Explore financial incentive and disincentive schemes to encourage liners to use less polluting OGVs calling Hong Kong ports	#
2. Optimize port efficiency to shorten waiting and turnaround time of OGVs, river trade vessels and mid-stream operators at container terminals, river trade terminals and public cargo working areas (PCWA)	#
3. Slow-steaming of OGVs in Hong Kong waters.	#
4. Encourage academia to carry out studies on fuel and energy efficient measures in terms of	#

Proposed new air quality improvement measures	Assessment
operation and maintenance for local vessels, e.g. use of light-weight materials such as carbon fibre, adjustment of propeller pitch angle, regular servicing of propeller and ship hull, use of variable frequency drives (VFD) on motors for pumps and fan systems on board, develop devices to monitor engine performance of local vessels, etc.	
5. Use energy efficient electrical devices on board local vessels, e.g. LED lightings.	#
6. Encourage the marine trade to develop best practice guidelines on fuel and energy saving measures, facilitate their adoption through establishment of award system with the marine trade.	#
<i>D. Other suggestions</i>	
1. Remove floating rubbish for smooth operation of small local vessels.	#
2. Government to expedite the approval process of new local vessels.	#

Note:

Measures to be deliberated in the coming meetings.

**Proposed new air quality improvement measures in
Road Transportation Sub-group**

Proposed new air quality improvement measures	Assessment
A. Tunnel payment policy and toll collection method	
1. Review the tunnel toll policy and level (e.g. the Government to buy back the tunnels, tunnel toll-subsidy pilot scheme).	The Government has been adopting a multi-pronged approach in tackling road traffic congestion. Rationalization of traffic flow through adjusting toll level is one of the measures to alleviate congestion. The Transport Department has started preparatory work for conducting a consultancy study on the overall strategy and feasible options for the rationalization of traffic distribution among the three road harbour crossings (RHCs), and will submit toll adjustment proposals covering the three RHCs to the Legislative Council Panel on Transport for discussion within the 2017-18 legislative year
2. Consider replacing the existing system with complete automatic toll collection system.	Tunnel traffic congestion is often caused by traffic volume exceeding the design capacity of some tunnels, and has no direct correlation with how tunnel tolls are collected.
B. Maintenance and repair of vehicle exhaust system	
1. Propose to use chassis dynamometer for testing vehicle tailpipe emissions.	No strong justifications for taking the measures forward as the current arrangements on vehicle emission inspection and testing are effective and sufficient, and that the vehicle
2. Tighten the annual vehicle examination for private cars from over six years old to over three years old (or consider adopting vehicle	

Proposed new air quality improvement measures	Assessment
kilometres travelled as the vehicle examination criterion).	tailpipe emission testing equipment affordable by the trade is already available in the market.
3. Provide vehicle tailpipe emission testing equipment for rent by small and medium-sized vehicle repair workshops.	
4. Establish a maintenance information database of vehicle tailpipe emission system.	Noting that vehicle manufacturers will have to provide access to maintenance information for new vehicle models at reasonable costs and that the EPD has been organizing vehicle maintenance seminars in collaboration with the VTC, vehicle manufacturers and vehicle maintenance trade associations, which the vehicle maintenance trade considers useful, the sub-group recommends the EPD continuing the effort.
5. Raise awareness on the importance of vehicle maintenance and repair.	This is an on-going measure and EPD will continue to organize publicity activities to raise the awareness of vehicle owners.
C. Fostering a "pedestrian-friendly" and "bicycle-friendly" environment	
1. Foster "pedestrian-friendly" environment (such as widening of footpaths, construction of covered walkways and enhancing the pedestrian connections) to encourage people to walk.	#
2. Foster “bicycle-friendly” environment and study into the provision of ancillary facilities for cycling (such as provision of cycling track network and bicycle parking spaces, park-and-ride facilities at public transport interchanges and bike-friendly policies to facilitate carriage of bicycles on public transport).	#

Proposed new air quality improvement measures	Assessment
3. Set up cycling and walking shared space at harbourfront areas.	#
4. Establish lower vehicle speed limits zones (e.g. 30km/h) in community roads, school zone and areas with elderly centres, to foster pedestrian environment.	#
D. Promotion of low-emission transport mode	
1. Tram or electric bus interchange schemes at busy road sections (e.g. Nathan Road) or new development areas to replace the franchised bus services so as to reduce the number of buses and boarding/alighting passengers on the road section. <ul style="list-style-type: none"> - Consider using electric buses with ultra-fast charge or super-capacitor models for the interchange schemes. - Set up priority lanes for trams/electric vehicles within the pilot areas. 	#
2. Electric vehicles pilot schemes - switching vehicle fleet of selected routes to electric vehicles. <ul style="list-style-type: none"> - Targeting green minibus or franchised bus routes. - With the support of vehicle supplier, work out the best configurations for electric vehicles of the selected routes for the trial. - The scale of the pilot scheme must be large enough (15 vehicles or more) to attract vehicle suppliers to provide comprehensive technical and maintenance support. 	#
3. Promotion of hybrid private cars.	#
4. Exploring the use of new-energy vehicles	#
E. Utilization of intelligent transport systems	
1. Launch one-stop mobile app for the public to choose the most time-saving, economical and low-emission transportation mode.	#

Proposed new air quality improvement measures	Assessment
2. Launch one-stop mobile app for the public to access real-time information on car parking vacancies which helps them choose the best parking location and shortening the driving distance.	#
3. Implement electronic road pricing scheme to tackle road traffic congestion at busy roads.	#
4. Introduce intelligent transport systems (e.g. manage traffic flow by traffic signal control, install smart sensors and surveillance cameras for illegal parking enforcement).	#
F. Land use and transport infrastructure planning	
1. Through proper land use planning to redress the current imbalance in home-job distribution and bring jobs closer to home so as to reduce commuting time and private car usage.	#
2. Use urban planning and design solutions together with transport management to improve air ventilation in high density development.	#
3. Conduct comprehensive review on the development of road transportation infrastructure and networks (such as construction of new tunnels and roads) to cope with population growth and to tackle road traffic congestion.	#
4. Provide low-emission transport mode to the residents of new development areas.	#
5. Enhance district-based publicity on bus route rationalization.	#
G. Managing road space	
1. Raise the first registration tax of highly polluting vehicles as well as private cars and impose emission limits on vehicle licences to manage the growth of vehicles.	#

Proposed new air quality improvement measures	Assessment
2. Enhance enforcement against illegal parking.	#
3. Review on-street metered parking fees.	#
H. Other suggestions	
1. Provide information on the energy efficiency, emission performance and noise level of vehicles, etc. to facilitate the public to make a more environmentally-friendly choice.	#
2. Set out objectives/policies to support the use of cleaner vehicle fuels.	#
3. Extend the coverage areas of the existing low emission zones and its restriction to other vehicle types.	#
4. Address the personal and operational needs of heavy vehicle drivers, such as provision of parking space and arrangement of meal and rest breaks at the Kwai Chung Container Terminals area, so as to reduce air pollution arising from idling engines.	#
5. Set up priority lanes for public vehicles.	#
6. Review the policy on replacement of franchised buses.	#
7. Provide funding support to innovative projects initiated by the public that can alleviate traffic congestion and improve air quality.	#
8. Raise public awareness on environmental protection, promote green living and encourage the public to use public transport systems as well as low emission transportation options.	#

Note:

Measures to be deliberated or concluded in the coming meetings.

**Proposed new air quality improvement measures in
Energy and Power Generation Sub-group**

Proposed new air quality improvement measures	Assessment
<i>A. Building energy efficiency measures</i>	
1. Encourage stakeholders in the commercial sector and the non-government sector, e.g. universities and hospital to adopt demand-side management (DSM) measures.	The Government has promulgated the “Energy Saving Plan” which sets a target of reducing Hong Kong energy intensity by 40% by 2025 and various policy measures to engage the community, including the commercial and non-government sectors to work together for energy saving.
2. Explore building energy efficiency measures for old existing buildings which are not covered by the Building Energy Efficiency Ordinance.	
3. Encourage major electricity users to reduce peak load demand so as to reduce the operation and emissions from coal-fired generating units for coping with peak load demand.	
<i>B. Use of renewable energy</i>	
1. Encourage or provide incentives for the private sector to develop distributed power generation by renewable energy (RE).	#
2. Facilitate distributed RE systems to connect to the power grid.	#
3. Encourage the development of more distributed waste-to-energy facilities, such as waste incinerators, organic waste treatment plants, etc. for waste disposal as well as recovering energy for local use.	#
4. Increase the use of wind and solar energy in electricity generation.	#
<i>C. Fuel mix for electricity generation</i>	
1. Replacement of coal-fired generating units by gas-fired units.	The Government is studying the long term carbon emission reduction target for Hong Kong. One of the important factors it will consider is
2. Consider importing more nuclear electricity from the Mainland.	

Proposed new air quality improvement measures	Assessment
	the long term fuel mix of Hong Kong, including phasing down of coal-fired generating units with cleaner energy source such as natural gas-fired generating units as the former reach their normal retirement life.
<i>D. Power generation plant</i>	
1. Upgrade burners of gas-fired generating units to improve fuel efficiency and emission performance.	Noted that the Government has been working with the power companies to explore potential upgrading of existing gas-fired generating units with a view to enhancing fuel efficiency and emission performance.
2. Review operations of gas-fired generating units with a view to identifying further emission reduction potential.	The Technical Memorandum issued under the Air Pollution Control Ordinance caps the emissions of power plants. To meet the emission caps, the power companies have to adopt the best practicable means to reduce emissions, including maximizing the use of their gas-fired generating units. Given the technical and operational constraints, there is limited scope to increase the operation of gas-fired generating units to further reduce emissions from power plants.
<i>E. New solar energy technology</i>	
1. Explore the idea of “SolarRoad” for promoting the use of solar energy.	#
<i>F. Use of biomass as fuel</i>	
1. Explore the use of waste materials such as corncobs, waste wooden pallets as fuel.	#

Proposed new air quality improvement measures	Assessment
<i>G. Energy Storage</i>	
1. Explore the feasibility of using electric vehicles (EV) as electrical energy storage for power grid.	#
2. Explore the use of old EV batteries as an electrical energy storage system for the power grid.	#

Note:

Measures to be deliberated in the coming meetings.

TENTATIVE MEETING SCHEDULE IN 2017

1. AQO Review Working Group

Meeting	Tentative Date/Time	Venue
2 nd	22 Dec 2016 (Thur) 2:00pm	EDB Kowloon Tong Centre
3 rd	<i>Jun 2017</i>	(To be confirmed)
4 th	<i>Oct 2017</i>	

2. Marine transportation sub-group

Meeting	Tentative Date/Time	Venue
5 th	10 Jan 2017 (Tue) 2:30pm	Conference room, 33/F, Revenue Tower
6 th	16 Feb 2017 (Thur) 2:30pm	<i>To be confirmed</i>
7 th	7 Mar 2017 (Tue) 2:30pm	Conference room, 33/F, Revenue Tower
8 th (if needed)	<i>16 May 2017 (Tue)</i> 2:30pm	<i>Conference room, 33/F, Revenue Tower</i>

3. Road transportation sub-group

Meeting	Tentative Date/Time	Venue
5 th	24 Jan 2017 (Tue) (4:00pm)	Conference room, 33/F, Revenue Tower
6 th	21 Feb 2017 (Tue) 2:30pm	Conference room, 33/F, Revenue Tower
7 th	14 Mar 2017 (Tue) 2:30pm	Conference room, 33/F, Revenue Tower
8 th (if needed)	<i>12 May 2017 (Fri)</i> 2:30pm	<i>Conference room, 33/F, Revenue Tower</i>

4. Energy and Power Generation sub-group

Meeting	Tentative Date/Time	Venue
4 th	17 Jan 2017 (Tue) 2:30pm	Room 1523, Tamar
5 th	2 Mar 2017 (Thur) 2:30pm	Room 1523, Tamar
6 th	6 Apr 2017 (Thur) 2:30pm	Room 1523, Tamar

5. Air Science & Health sub-group

Meeting	Tentative Dates	Venue
4 th	20 Feb 2017 (Mon) 2:30pm	Room 1523, Tamar
5 th	<i>April 2017 (to be confirmed)</i>	<i>To be confirmed</i>
6 th	20 Jun 2017 (Tue) 2:30pm	Conference room, 33/F, Revenue Tower

Note: The two task forces formed under the Air Science & Health sub-group will have regular meetings to discuss technical issues for the air quality emissions and modelling, health and economic assessments.