

Annex 3A

Review of Potential Concurrent Projects

3A.1

INTRODUCTION

Committed or planned projects in the five areas below may potentially interface with the construction and operation of this Project:

1. LNG Terminal that will be located in the southern waters of Hong Kong, where it will operate, and the transit route for LNGCs is expected to be from the southern boundary of Hong Kong waters to the LNG Terminal;
2. Subsea pipeline that will connect the LNG Terminal with the BPPS and hence will traverse the south-western, western and north-western waters of Hong Kong;
3. Subsea pipeline that will connect the LNG Terminal with the LPS and hence will traverse the southern waters of Hong Kong;
4. GRS that will be constructed and operated at the BPPS, within the existing power station footprint; and
5. GRS that will be constructed and operated at the LPS, within the existing power station footprint.

The committed or planned projects in these areas are described below. Where sufficient information is available, the cumulative impacts from these projects, if any, are addressed in the technical assessments in this EIA if these projects are located within the study area for the respective technical aspects. Existing operations in these areas which may also interact with the construction and operation of this Project (e.g. air emissions from the BPPS, LPS and other sources, discharges from sewerage systems, etc.) are considered in the technical assessments as baseline/ background conditions as relevant and are therefore not summarised in this *Annex*.

3A.2

OVERVIEW OF CONCURRENT PROJECTS

The developments that may have the potential to interact with the construction and/or operation of this Project include:

- *Additional Gas-fired Generation Units Project (Register No.: AEIAR-197/2016)*: the scope of this project involves the construction and operation of up to two 600 MW class additional gas-fired generation units at the BPPS. The construction of the project is implemented in stages commencing from the second half of 2016, with commercial operation of the first unit anticipated by the end of 2019. The implementation of the second unit remains to be confirmed.
- *West New Territories (WENT) Landfill Extensions (Register No.: AEIAR-147/2009)*: this landfill extension is at least 60m away (at the nearest site

boundary) from the BPPS. It is currently under a Design and Construction Consultancy Study, but the programme remains uncertain.

- *Decommissioning of West Portion of the Middle Ash Lagoon at Tsang Tsui, Tuen Mun (Register No.: AEIAR-186/2015)*: this project involves the decommissioning of the pulverized fuel ash (PFA) lagoon at the west portion of the Middle Ash Lagoon at Tsang Tsui, Tuen Mun, which was operated by CAPCO for the placement of water and PFA. The decommissioning will provide buildable land for future developments by the HKSAR Government. A columbarium has been proposed to be built at the site. The tentative decommissioning period would be from early 2016 and the construction of columbarium is targeted for completion by 2018/2019. It is about 500m away from the BPPS (at the nearest site boundary).
- *Development of the Integrated Waste Management Facilities Phase 1 (Tsang Tsui Option) (Register No.: AEIAR-163/2012)*: this project is to construct and operate a modern facility for managing municipal solid waste through an advanced thermal incineration process. It comprises an incineration plant, a mechanical treatment plant, and ancillary facilities, which may be constructed at the Tsang Tsui Ash Lagoon in Nim Wan, about 600m from the BPPS (at the nearest site boundary). The construction programme at this site is yet to be confirmed.
- *Landfill Gas Power Generation Project at the West New Territories (WENT) Landfill (DIR-251/2017)*: this project involves the construction of up to seven containerised landfill gas power generation units (each with a generation capacity of 2MW) in the north-western part of the existing WENT Landfill for using unutilised landfill gas from the WENT Landfill as fuel for electricity generation. The project, which is located about 1.3km from the BPPS (at the nearest site boundary), is anticipated to be implemented in phases, with construction of the first phase tentatively scheduled to commence in Q2 2017 for operation in Q3 2018.
- *Pyrolysis Plant at EcoPark (EPD Study Brief ESB-259/2013)*: this project consists of four pyrolysis furnace systems, with each system having a handling capacity of 5 tonnes of waste plastics per day. It is currently under the EIA stage and the implementation timing is uncertain at this stage (although the corresponding EIA Project Profile submitted by the project proponent indicated the construction is expected to commence in 2015). It is about 5 km away from the BPPS.
- *Engineering Feasibility Study for Industrial Estate at Tuen Mun Area 38 (EPD Study Brief ESB-277/2014)*: this project includes the development of an Industrial Estate with temporary loading and storage of petrochemical feedstock site and other road modification works in Tuen Mun Area 38, and involves the marine construction of a subsea sewage outfall. This project is about 5 km away from the BPPS, and its construction period is tentatively scheduled from 2019 to 2023. It is currently under EIA stage and details of this project are not publicly available at the time of preparation of this EIA.

- *Planning and Engineering Study for Tuen Mun Areas 40 and 46 and the Adjoining Areas (EPD Study Brief ESB-255/2012)*: the study aims to investigate the potential for re-planning Tuen Mun Areas 40 and 46 and the adjoining areas for uses such as commercial, office and hotel uses, logistics uses, high technology, industry uses, residential use, etc.. According to the latest information from the project website, the feasibility study commenced in May 2013 and is anticipated for completion in 2015; however the future development proposal is yet to be determined. It is about 5 km away from the BPPS (at the nearest site boundary).
- *Potential Reclamation Site at Lung Kwu Tan*: this site is located along the coastal waters of Lung Kwu Tan and Lung Kwu Sheung Tan, which is about 500m away from the BPPS (at the nearest site boundary) and more than 1.5km from the proposed BPPS Pipeline. With an area of about 200 – 300 ha, this proposed site would potentially be used for residential development ⁽¹⁾. Technical study for this potential reclamation would be completed in 2017 ⁽²⁾, followed by a planning and engineering study, but details of its implementation are uncertain at this stage.
- *Enhanced Ash Utilisation and Water Management Facilities at Castle Peak Power Station (CPPS) (EP-441/2012)*: this project involves the re-construction of the two existing water lagoons at CPPS by lowering their base slabs and the construction of a new one to increase the storage capacities of the water lagoons at CPPS. The water lagoons are used for temporary storage of storm water runoff collected from the coal stockyard and process water from the operation of the CPPS which in turn can be reused for the operation of the CPPS. The project is expected to be constructed between 2017 and 2020. It is more than 3.5km away from the BPPS Pipeline.
- *Expansion of Hong Kong International Airport into a Three-Runway System (Register No.: AEIAR-185/2014)*: this project includes various marine activities that could interact with the installation of the BPPS Pipeline which is about 1km away. This includes the diversion of existing subsea utilities and land formation works. Information from the EIA and EM&A programme indicates that marine construction works would cover late 2015 through 2021. A compensatory marine park has also been proposed in the EIA. The BPPS Pipeline routing runs parallel within the western boundary of this proposed marine park, though designation is expected to be after the subsea pipeline to the BPPS has been installed.
- *Tung Chung New Town Extension (Register No. AEIAR-196/2016)*: this project involves approximately 130 hectares of reclamation along the shoreline northeast of Tung Chung, about 9km from the BPPS Pipeline. Marine

- (1) Agreement No. CE 14/2013 (CE) Cumulative Environmental Impact Assessment Study for the Three Potential Nearshore Reclamation Sites in the Western Waters of Hong Kong - Investigation - Executive Summary (Final) (2013). Retrieved October 6, 2015 from Civil Engineering and Development Department, Web site: [http://www.cedd.gov.hk/eng/landsupply/doc/Executive%20Summary%20on%20Final%20Report\(S2\)b.pdf](http://www.cedd.gov.hk/eng/landsupply/doc/Executive%20Summary%20on%20Final%20Report(S2)b.pdf)
- (2) HKSAR Government Press Releases. <http://www.info.gov.hk/gia/general/201701/18/P2017011800415.htm>. Accessed 4 August 2017

construction for reclamation would be non-dredged and marine filling would be conducted behind seawall with at least 200 m leading edge and silt curtain. Reclamation works would be undertaken from late 2017 to late 2023.

- *Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road (Register No.: AEIAR-144/2009)*: this project provides the necessary linkage in the form of viaducts/bridgework between the Hong Kong-Zhuhai-Macao Bridge Main Bridge and the Hong Kong boundary crossing facilities (HKBCF). Located to the north of Lantau Island over the Airport Channel and the BPPS Pipeline route, it is currently under construction. The marine viaduct connected with the Hong Kong-Zhuhai-Macao Bridge Main Bridge is completed in January 2017 ⁽¹⁾.
- *Tonggu Waterway*: information from the Shenzhen Port Tonggu Channel Developing Office indicates that maintenance dredging may take place annually. No updated information is available at the time of preparing this EIA Report.
- *Outlying Islands Sewerage Stage 2 - Upgrading of Tai O Sewage Collection, Treatment and Disposal Facilities (Register No. AEIAR-209/2017)*: this project provides new sewers to unsewered areas in Tai O, upgrading the sewage treatment level of the existing Tai O Sewage Treatment Works (STW), expanding the STW by increasing its design capacity, and replacing the existing subsea outfall with a new subsea outfall. According to the approved EIA of this project, the marine construction of the subsea outfall, which is about 1.5km from the BPPS Pipeline (at the nearest site boundary), would be completed before 2019.
- *Southwest Lantau Marine Park (SWLMP) and South Lantau Marine Park (SLMP)*: Agriculture, Fisheries and Conservation Department (AFCD) is proceeding with the statutory approvals required to designate these two proposed Marine Parks. The draft map of the proposed SWLMP was published in the Gazette on 23 June 2017 ⁽²⁾. Given the close proximity of the Soko Islands Marine Park (SIMP) and the compensatory marine park for the Integrated Waste Management Facilities (IWMF) Phase 1 Project in terms of their geographical location and designation timeline, it is proposed to combine them into one single marine park of approximately 2,067 hectares, to be named as the South Lantau Marine Park (SLMP). Based on information available at the time of preparing this EIA report, the proposed boundaries of SWLMP and SLMP do not overlap with the proposed locations for the LNG Terminal and the two subsea pipeline routes. With reference to Country and Marine Parks Board Working Papers (WP/CMPB/2/2017 and WP/CMPB/12/2017), the designation of SWLMP and SLMP is anticipated to come in effect in 2018 and 2019 respectively.

(1) HyD (2017) <http://hzmb.hk/eng/timeline.html>. Accessed on 4 August 2017.

(2) AFCD (2017) http://www.afcd.gov.hk/english/country/cou_vis/cou_vis_mar/cou_vis_mar_wha/mp_swl_draftmap.html. Accessed on 4 August 2017

- *Potential Spa and Resort Development at Soko Islands*: Civil Engineering and Development Department (CEDD) is undertaking a feasibility study on developing a spa and resort on South Soko which is over 1km from the BPPS Pipeline and over 5km from the LNG Terminal. The development itself is on land and hence does not overlap with this Project. Details of its implementation programme are uncertain at this stage. It is noted that this potential development is not mentioned in the latest Sustainable Lantau Blueprint ⁽¹⁾ by the Development Bureau (DevB).
- *Development of the Integrated Waste Management Facilities Phase 1 (Shek Kwu Chau Option) (Register No.: AEIAR-163/2012)*: based on latest correspondence with the proponent of this project, EPD, the marine works for this project, which primarily involves the formation of about 15.9 ha of reclamation adjacent to Shek Kwu Chau (about 1.5km away from the LPS Pipeline and over 4km from the LNG Terminal) by non-dredged methods, is anticipated to commence in 2018 for completion in around 2022. Submarine cable laying works associated with the project currently do not have a confirmed programme. Also, a key requirement from the EIA was the development of a compensatory marine park of at least 700 ha. EPD is at present conducting a study on the siting and management of the compensatory marine park. Given the close proximity of the SIMP and the compensatory marine park for the Integrated Waste Management Facilities (IWMF) Phase 1 Project in terms of their geographical location and designation timeline, it is proposed to combine them into one single marine park of approximately 2,067 hectares, to be named as the South Lantau Marine Park (SLMP). Based on information available at the time of preparing this EIA report, the LNG Terminal and the two subsea pipeline routes are located outside of the proposed boundary of SLMP. As advised by the AFCD, the designation of this marine park is anticipated to come in effect in 2019.
- *Outlying Islands Sewerage Stage 2 - South Lantau Sewerage Works (Register No. AEIAR-210/2017)*: this project involves the construction and operation of a sewerage system for proper collection, treatment and disposal of the sewage arising from South Lantau. According to the approved EIA of this project, the marine construction of the subsea outfall, which is about 6.5km from the LPS Pipeline (at the nearest site boundary), would be conducted in 2018.
- *Outlying Island Sewerage Stage 2 - Upgrading of Cheung Chau Sewage Collection, Treatment and Disposal Facilities (Register No.: AEIAR-181/2013)*: this project involves the expansion and upgrade of existing sewerage facilities in Cheung Chau. Treated effluent is proposed for non-potable reuse, with remaining portion discharged via an outfall. The project is about 4.5km away from the LPS Pipeline.
- *Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel (Register No.: AEIAR-156/2010)*: this project involves the deepening

(1) CEDD (2017) Sustainable Lantau Blueprint. 64 pp.

of seabed level at the Kwai Tsing Container Basin, the northern and western fairways to -17.5 mCD. Based on publicly available information on the project EM&A website ⁽¹⁾, the capital dredging works under this project would be completed by 2017. Maintenance dredging under the project may be required, the nearest dredging area would be at least 4.4 km away from the LPS Pipeline route, while the majority of the dredging area would be more than 6.6 km away.

- *Additional Gas-fired Generation Units at LPS*: HKElectric has started the construction of two new gas-fired units (known as "L10" and "L11") at the Lamma Power Station Extension, which are expected to be commissioned in 2020 and 2022 respectively.
- *Improvement Dredging for Lamma Power Station Navigation Channel (EIA-251/2017)*: this Project involves improvement dredging of the Lamma Power Station Navigation Channel adjacent to the LPS to meet the requirements for continued safe passage and berthing of associated vessels. According to the EIA submitted for public inspection, the proposed maintenance dredging work involves deepening the existing Channel to -16.5 mPD, with the first maintenance dredging scheduled to commence in 2019 and last for 12 to 18 months.
- *Development of a 100MW Offshore Wind Farm in Hong Kong (Register No.: AEIAR-152/2010)*: HK Electric propose to develop an offshore wind farm in the waters between Lamma Island and Cheung Chau lying adjacent to the Southwest Lamma Channel, at approximately 4 km southwest of the LPS. The subsea pipeline to the LPS will not overlap with the infrastructure of the wind farm. Details of its implementation programme are uncertain at this stage.
- *Planning and Engineering Study on Future Land Use at Ex-Lamma Quarry Area at Sok Kwu Wan, Lamma Island (EPD Study Brief ESB-270/2014)*: The Project comprises tourist and recreational facilities and housing developments accompanied by supporting infrastructure at the Ex-Lamma Quarry Area at Sok Kwu Wan, Lamma Island, which is about 3 km from the LPS. Details of its implementation programme are uncertain at this stage.
- *Potential Reclamation Sites at Siu Ho Wan and Sunny Bay, and Artificial Islands Southeast of Lantau Island*: As part of the Sustainable Lantau Blueprint and the Enhancing Land Supply Strategy studies, CEDD is investigating the feasibility of enhancing the long-term land supply through, amongst a number of options, reclamation outside the Victoria Harbour. Nearshore reclamation sites, namely Siu Ho Wan and Sunny Bay, artificial islands potentially in the central waters southeast of Lantau Island, are being considered. Details of the implementation programmes of these sites are uncertain at this stage.

(1) Project EM&A Website available at <http://www.ktd-monitoring.com/>

- *New Contaminated Mud Marine Disposal Facility at Airport East / East Sha Chau Area (AEIAR-089/2005)*: This project involves the construction, backfilling and capping of the contaminated mud marine disposal facility at East Sha Chau Area, which is around 7 km away from proposed BPPS pipeline alignment. Based on the approved EIA, a number of mud pits (namely pit Va, Vb, Vc and Vd), were proposed to be dredged, backfilled and then capped consequentially to fulfil the demand for marine sediment disposal. Pit Vd is currently in operation in 2017 and it is expected that disposal at Pit Vd will be ended in 2019; subsequently Vb then Vc will be utilised. The marine works under this project are taken into account as appropriate in the construction phase sediment plume modelling exercise under this EIA Study according to the modelled maximum production rates.
- *Open Sea Disposal Area for Uncontaminated Sediment at South Cheung Chau*: This open sea disposal area covers a large swath of waters south of Cheung Chau and Shek Kwu Chau east of Soko Islands and the Project Site. This open sea disposal area receives uncontaminated sediment from various projects and is operated on an as-needed basis by CEDD. Forecasts for operations in 2019 from CEDD for disposal activities under this project have been taken into account as appropriate in the construction phase sediment plume modelling exercise under this EIA Study.