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ACE Paper 9/2018
For advice by circulation

Report on the 142nd
Environmental Impact Assessment Subcommittee Meeting

PURPOSE

The Environmental Impact Assessment (EIA) Subcommittee considered the EIA report on “**Hong Kong Offshore LNG Terminal**” under Section 6(2) of the Environmental Impact Assessment Ordinance (EIAO) at the meeting on 23 July 2018. The EIA report was submitted by the CLP Power Hong Kong Limited (CLP) (the Project Proponent).

2. Members are requested to note the views of the EIA Subcommittee at paragraph 9 below and advise whether the EIA report should be endorsed or not.

BACKGROUND AND NEED FOR THE PROJECT

3. Electricity generation is a major source of air pollutant and greenhouse gas emissions. In 2015, the Government announced the plan of increasing the percentage of natural gas in the fuel mix for electricity generation to around 50% by 2020 to meet the emission reduction targets for major air pollutants. CLP and The Hongkong Electric Company Limited (HKE) are the two power companies in Hong Kong supplying electricity to all consumers. They are jointly exploring the feasibility of developing a liquefied natural gas (LNG) receiving terminal in Hong Kong offshore waters to enhance the security and reliability of sourcing natural gas for Hong Kong.

4. According to the EIA report, the Project will provide an additional natural gas supply source to meet Hong Kong’s fuel mix target of having around 50% natural

gas-fired electricity generation in Hong Kong by 2020 so as to further reduce carbon emissions and improve the local air quality. The Project will diversify the natural gas supply sources and increase the options to access competitively priced gas directly from the global LNG market for Hong Kong. The Project will also enhance the security and reliability of using natural gas for electricity generation to cope with the potential risks of disruption in gas supply.

5. Please refer to the ACE-EIA Paper 1/2018 at ***Annex A*** for details.

VIEWS OF THE DIRECTOR OF ENVIRONMENTAL PROTECTION

6. The Director of Environmental Protection (DEP), in consultation with the relevant authorities, considered that the EIA report had met the requirements in the EIA Study Brief and the Technical Memorandum on EIA Process (TM) of the EIAO for the purpose of exhibiting the report for public inspection, under the section 7(4) of the EIAO. Comments from the public and the ACE will be taken into account by DEP in deciding whether or not to approve the EIA report under the EIAO.

VIEWS OF THE SUBCOMMITTEE

7. Public inspection period of the EIA report was from 15 June 2018 to 14 July 2018. 51 sets of public comments received by the Environmental Protection Department (EPD) during the inspection period and the gist of the comments were issued to EIA Subcommittee Members for reference on 18 and 19 July 2018, with copies to non-EIA Subcommittee Members.
8. Relevant extract of the draft minutes of the EIA Subcommittee meeting held on 23 July 2018 is at ***Annex B***.

RECOMMENDATIONS OF THE SUBCOMMITTEE

9. Having considered the findings of the EIA report and the information provided by the Project Proponent, the EIA Subcommittee agrees to recommend to the full Council to endorse the EIA report with the following conditions and recommendations –

Conditions of Endorsement

The Project Proponent shall -

- (a) conduct a baseline study on phytoplankton, zooplankton and benthic organisms at both the seawater intake and discharge points of the Floating Storage and Regasification Unit (FSRU). The findings of the baseline study shall be submitted to the DEP for approval before commencement of construction of the project;
- (b) submit a piling installation plan (the Piling Plan) of the jetty, including information relating to the number and diameter of the piles to be installed as well as the installation method, with a view to minimizing potential impacts to the environment. The Piling Plan shall be submitted to the DEP for approval before commencement of construction of the jetty;
- (c) conduct a review to ascertain the peak occurrence season of the Finless Porpoise based on the long-term data from the marine mammal monitoring programme of the Agriculture, Fisheries and Conservation Department (AFCD), with a view to avoiding underwater piling works for jetty construction during the peak occurrence season of the Finless Porpoise. The results of the review shall be submitted to the DEP for approval before commencement of construction of the project;
- (d) propose measures to reduce the potential impacts on avifauna associated with gas discharge via the vent stack for natural gas during emergency. The proposed measures shall be submitted to the DEP for approval before commencement of construction of the project;
- (e) submit a pipeline construction plan (the Pipelaying Plan) with information on the sequence and schedule of different work fronts for conducting dredging and jetting works associated with laying of gas pipelines under the project, with a view to minimizing the impacts to marine ecology as far as practicable. The Pipelaying Plan shall be submitted to the DEP for approval before commencement of construction of the project; and
- (f) submit and implement to the satisfaction of the DEP an enhancement plan (the Enhancement Plan) to support the environmental enhancement initiatives to be established for the enhancement of South Lantau marine environment, including marine ecology and conservation, as well as fisheries resources and sustainable

development of the fishing industry. The Enhancement Plan shall include information concerning the setting up of an independent management committee consisting of experts, representatives of the fishing industry and other stakeholders to oversee the implementation of the environmental enhancement initiatives in the Enhancement Plan. The Enhancement Plan shall be submitted to the DEP for approval before the commencement of the construction of the project.

Recommendations

The Project Proponent is recommended to –

- (g) review the orientation of the jetty and transit route of the FSRU under adverse weather conditions and emergency situations, with a view to reducing the extent of encroachment, in terms of frequency, duration and distance, onto the proposed South Lantau Marine Park (SLMP);
- (h) explore alternative seawater intake arrangements such as multiple screens with different mesh sizes, backwashing and cross flow intake design, with a view to preventing and reducing impingement and entrainment of marine organisms and the need and dosage of chlorination to inhibit the growth of organisms within the heat exchange system for the regasification process;
- (i) specify clearly in tender documents the environmental requirements, including a trial before the commencement of the relevant works, for the dredging and jetting works associated with laying the gas pipelines and related screening criteria for tender evaluation, so as to ensure that contractors for the project will be able to provide the required professional services and equipment, and implement the measures for meeting the environmental performance as required in the EIA;
- (j) enhance the monitoring of Chinese White Dolphins during dredging and jetting works and enlarge the marine mammal exclusion zone for the project, if possible;
- (k) monitor the conditions of phytoplankton, zooplankton and benthic organisms at both the seawater intake and discharge points of the FSRU during the operational phase of the project and study any synergistic effect of cooled seawater discharge and chlorination on marine ecology;
- (l) provide AFCD with relevant ecological monitoring data from this project to enrich its ecological database in the geographic information system (GIS);

- (m) explore the possibility of reusing the “waste coolness” from regasification process with reference to overseas studies and experience;
- (n) compare the carbon footprint and energy efficiency of the liquefied natural gas (LNG) distribution via LNG carriers and piped gas supply;
- (o) enhance the visual elements associated with the project with a view to reducing the visual impacts generated by the project;
- (p) consider the creation of “artificial reefs” effect at the proposed jetty; and
- (q) provide AFCD with necessary space and equipment within the project site for setting up a monitoring system (such as closed-circuit television and automatic identification system) against activities suspected to be non-compliant with the Marine Parks Ordinance within the proposed SLMP.

10. The EIA Subcommittee has agreed that the Project Proponent is not required to attend the full Council meeting that was originally scheduled on 10 September 2018.

EIA Subcommittee Secretariat
September 2018