

Hong Kong Offshore Wind Farm (HKOWF) in South-eastern Waters

Draft Minutes of the 9th Stakeholder Liaison Group (SLG) Meeting - 5th Term SLG 2nd Meeting

Date: 23rd March 2022

Time: 3:00 pm to 4:00 pm

Location: Teams Online Meeting

Present:

- Mr Stephen CHAN (CLP Power, Director - Strategic Planning and Regulatory Affairs)
- Mr Gareth MILNE (CLP Power, HKOWF Project Director) – *English Channel*
- Mr Terence FONG (ERM, Meeting Facilitator)

- Prof CHAN Lung-sang (Honorary Professor, Dept. of Earth Sciences, HKU)
- Mr CHENG King-man (Chairman, Sai Kung Fishermen's Association)
- Dr CHENG Luk-ki (Director, Green Power)
- Mr Andy CHU (Programme Manager, Greenpeace)
- Mr Stephen CHUI (Chairman, Hong Kong Fishermen's Youth Association)
- Mr Wilson KWONG (Chairman, Environment and Sustainability Committee, HKGCC)
- Mr LAU Kai-hong (Chairman, Hang Hau Rural Committee)
- Mr Samson SO (Director, Eco Institute)
- Dr YAU Wing-kwong, JP (Chief Executive Officer, Environmental Association)
- Mr Frederick YU (Chairman, China HK Mountaineering and Climbing Union)

Absent with Apologies:

- Prof. Alexis LAU (Associate Director, Institute for the Environment, HKUST)
- Prof. Gerald PATCHELL (Associate Professor, Division of Environment and Sustainability, HKUST)
- Mr. WONG Shui-sang (Chairman, Sai Kung Rural Committee)

Also present were three environmental consultants from ERM and CLP representatives.

Ref No.	Issues/Discussion	Follow-up Actions and Responsible By
1	<p>Introduction of 9th SLG Meeting Outline</p> <p>1.1 The Facilitator began the 9th Stakeholder Liaison Group (SLG) meeting by introducing the SLG members present virtually, and outlining that the following information would be presented in this meeting: i) Project Background, ii) Project Updates, iii) Future Plan, and iv) AOB.</p> <p>1.2 The HKOWF Project Director from CLP Power also gave a welcome address.</p> <p>1.3 The Facilitator concluded the introduction portion of the meeting by informing the SLG members that material relating to the SLG to be uploaded to the project website, and clarified that the meeting was recorded only to assist minute taking. SLG members did not raise any questions and confirmed agreement on the meeting outline.</p> <p>1.4 Attendees were separated into two Breakout Rooms for the virtual presentation in Chinese and English language respectively.</p>	
2	<p>HKOWF Project Background</p> <p>2.1 The Project Director introduced the HKOWF Project Background, in which the Environmental Impact Assessment (EIA) Report was approved and Environmental Permit (EP) was granted in August 2009. CLP is revisiting the feasibility and development potential of the Project to support HKSAR Government's long-term decarbonisation strategy to achieve carbon neutrality before 2050, and to increase renewable energy in fuel mix to align with roadmap to carbon neutrality for Hong Kong.</p> <p>2.2 The Project Director briefed the general layout and project key elements in the EP, including the location (i.e. ~9 km from Clearwater Bay), the components of the wind farm including wind turbines, an offshore transformer substation, array cables within the wind farm and transmission cables to connect the wind farm to the electricity grid onshore.</p>	
3	<p>HKOWF Project Updates</p> <p>3.1 The Project Director stated that after EPD's approval of a Variation of Environmental Permit (VEP) application for adoption of larger wind turbines for the Project in April 2021, feasibility studies have continued and some conceptual designs for the HKOWF Project have progressed.</p>	

	<p>3.2 The Project Director explained that Preliminary Site Investigation works started in March 2021 and target to complete by mid 2022. Site Investigation results are required to confirm the feasibility of the suction caisson foundations across the entire wind farm site and cable laying by jetting method over the cable route.</p> <p>3.3 The Project Director stated a landing site feasibility study was conducted, but the original landing site proposed in the approved EIA and EP is no longer appropriate with completion of infrastructure development in the Tseung Kwan O Area, therefore, Fat Tong Chau was identified as an alternative landing site. Furthermore, Horizontal Directional Drilling (HDD), a trenchless technique, will be applied to lay cable through at the landing site, and further assessments are underway. Adoption of HDD technology for duct installation at Fat Tong Chau avoids open trench installation and minimises environmental (air, noise, waste) and ecological (terrestrial and coral communities) impacts.</p> <p>3.4 The Project Director explained a feasibility study was conducted on the export cable route, in which the existing cable alignment passes through a seabed area that is close to the Civil Engineering and Development Department's (CEDD) designated and gazetted dumping sites. The findings of this export cable route feasibility study and preliminary Site Investigation results, identified the physical constraints of jetting operation for cable laying, as well as confirmed the feasibility of revising the cable alignment.</p> <p>3.5 The Project Director elaborated on the benefits of the proposed variation of cable landing site and alignment, including a shorter cable distance resulting in lower environmental impact and avoidance of dredging operations for cable laying that was required in the original landing site within Junk Bay. Also, the variation optimises marine space utilisation because it avoids both marine dumping areas managed by CEDD and crossing the nine existing submarine cables that land at Tseung Kwan O Industrial Estate.</p> <p>3.6 The Project Director stated permitting applications will be submitted in Q2 2022 including a Variation of Environmental Permit (VEP) application for the revised cable landing point and cable alignment, and an authorisation application under Foreshore and Sea-bed (Reclamations) Ordinance.</p> <p>3.7 The Project Director stated that an Environmental Review against the approved EIA Report was conducted to support the VEP application, which evaluated potential environmental impacts including water quality, benthic ecology, pelagic ecology, fisheries, cultural heritage and waste and material management. The Project Director explained that the Environmental Review findings</p>	
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	<p>showed EIA conclusions and recommendations remain valid, variations will not constitute a material change to the Project, and the VEP application will be submitted for EPD approval.</p> <p>3.8 The Project Director elaborated on the progress of the meteorological mast removal, in which pre-removal inspection was completed in August 2021 and the monitoring equipment was removed after data collection completed. The removal works and disposal is expected to complete in 2022.</p>	
4	<p>Future Plan for HKOWF</p> <p>4.1 The Project Director explained CLP’s multi-pronged approach to decarbonise energy supply, which includes using more gas to displace coal and enhanced transmission to enable regional cooperation, as well as more renewable energy and zero-carbon fuels development.</p> <p>4.2 The Project Director stated increasing renewable energy is needed to support HK’s carbon neutrality target and explained the total electricity generation from HKOWF Phase 1 will be dependent on the detailed project design, wind turbine technology development and wind turbine selection.</p> <p>4.3 The Project Director explained an assessment of potential sites for the expansion of HKOWF will be conducted. A Project Profile leading to an EIA study will be prepared, in which more details about the HKOWF project expansion plan will be determined during the initial study.</p> <p>The Project Director concluded that in support of HK’s decarbonation strategy, CLP will continue with HKOWF Phase 1 feasibility studies and preparation of a proposal for Government approval. CLP will explore feasibility of the wind farm expansion to support the Government’s long term decarbonisation target.</p>	
5	<p>Group Discussion</p> <p>5.1 Attendees returned to the Main Room for group discussion.</p> <p>5.2 A SLG member asked whether the Project variations have considered the existing infrastructure plans around Fat Tong Chau and communicated with Planning Department about long-term plans. The Facilitator replied that discussions have indeed taken place with multiple government departments including the Planning Department, Civil Engineering and Development Department (CEDD) and Lands Department during Site Investigation, in which it was decided that the current landing site is the most optimal.</p>	

	<p>5.3 A SLG member inquired for details regarding the shortened distance in the proposed variation of cable alignment and HDD technology. The Facilitator replied the cable will be shortened by approximately 4 km (from ~24 km to ~20 km), and that adopting HDD technology will have lower environmental impact compared to previously planned open trench installation methods.</p> <p>5.4 A SLG member inquired for details regarding the water depth of the HKOWF Project. The Facilitator responded a Site Investigation is currently underway to assess geo-environmental properties of the ground conditions, which will collect more granular data about water depth of the HKOWF project.</p> <p>5.5 A SLG member asked whether a coral survey has been conducted regarding the new cable alignment. The Facilitator replied that the new cable alignment is even further from coral communities that are mostly around Tung Lung Chau compared to the original alignment, thus there will be the same minimal or even reduced environmental impact.</p> <p>5.6 A SLG member asked whether there will be any impact on terrestrial ecology between the landing site and cable substation. The Facilitator responded that HDD drilling operations occur beneath the ground and the punch-out location occurs on barren land, therefore will have minimal terrestrial ecological impact consistent with the Environmental Review.</p> <p>5.7 A SLG member asked whether the cable at landing site will connect to a new or existing substation. The Project Director confirmed that the cable is planned to connect to an existing substation.</p> <p>5.8 A SLG member asked whether the impact of earthquakes have been considered in the HKOWF Project. The Project Director responded that the current Preliminary Site Investigation findings will provide information about ground conditions, and further studies and assessment relating to natural hazards will be conducted where necessary.</p> <p>5.9 A SLG member inquired about the possibility of a public education centre at the HKOWF cable landing site. CLP Power’s Director of Strategic Planning and Regulatory Affairs (D-SP&RA) stated that there is plan to set up education facility on offshore wind farm and renewable energy, and noted the requirement of easy public access, and will engage with more stakeholders.</p> <p>5.10 A SLG member stated that there is no concern on the proposed new cable landing site and the alignment, agreed that the HDD is more preferable than the traditional open trench method, suggested that fisheries stakeholders should be informed about HKOWF Project in advance of the</p>	<p>CLP may share more granular data about water depth, and geotechnical and geo-environmental properties of the Project ground conditions after completion of the Preliminary Site Investigation.</p> <p>CLP will consider the SLG’s suggestion for building a HKOWF public education centre and its possible locations, as well as other public education channels.</p>
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	<p>implementation and noted the possibilities about increased tourism in the area. The Facilitator thanked the SLG member for the suggestion and comment, and added that the Project is also in continued close contact with the Marine Department.</p> <p>5.11 A SLG member enquired about the location of the HKOWF expansion and engagement with fisheries stakeholders regarding this expansion. The Project Director responded that the HKOWF expansion is still in a very preliminary stage and locations have not been designated yet. The Project Director emphasised that the EIA and engagement with fisheries and other stakeholders will play a crucial part of this initial study moving forward. The Project Director also emphasised that the current permitting application under Foreshore and Sea-bed (Reclamations) Ordinance involves communication with fisheries and other stakeholders.</p> <p>5.12 A SLG member enquired about the HKOWF expansion in relation to CLP Power's renewable energy targets. The D-SP&RA responded that CLP's HKOWF expansion plans are considered alongside technologies such as waste-to-energy and landfill gas utilisation, in alignment with HKSAR Government's long-term decarbonisation strategy to achieve carbon neutrality before 2050.</p> <p>5.13 A SLG member enquired about the impact of the HKOWF Project on CLP Power's total energy supply and electricity tariff. The D-SP&RA responded that CLP would aim to maintain a reasonable electricity tariff to avoid abrupt increase.</p>	
<p>Conclusion</p> <p>6.1 The 9th SLG meeting closed at 4:00 pm.</p>		<p>Meeting minutes will be circulated among all SLG members for agreement and posted on website within one month of the 9th SLG meeting. www.clp.com.hk/offshorewindfarm</p>

Note: The HKOWF SLG meetings are closed door meetings and meeting minutes are uploaded online for public review. Members are not cited in name in the minutes. The practice is commonly adopted in SLG meetings of other infrastructure projects.