

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

**Draft Minutes of the 10<sup>th</sup> Stakeholder Liaison Group (SLG) Meeting - 5<sup>th</sup> Term SLG 3<sup>rd</sup> Meeting**

**Date: 26<sup>th</sup> September 2022**

**Time: 2:00 pm to 3:00 pm**

**Location: Meeting Room 1A, 1/F, CLP Head Office, Hung Hom**

**Present:**

- Mr Ron CHUNG (CLP Power, Director - Business Planning and Regulatory Affairs)
- Mr Louis LI (CLP Power, Principal Corporate Affairs Manager)
- Mr Gareth MILNE (CLP Power, HKOWF Project Director)
- Ms Vivian CHAN (CLP Power, HKOWF Senior Environmental Manager)
- Mr Terence FONG (ERM, Meeting Facilitator)
  
- 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)
- Prof. Alexis LAU (Associate Director, Institute for the Environment, HKUST)
- Prof. Gerald PATCHELL (Associate Professor, Division of Environment and Sustainability, HKUST)
- Mr LAU Kai-hong (Chairman, Hang Hau Rural Committee)
- Dr YAU Wing-kwong, JP (Chief Executive Officer, Environmental Association)

**Absent with Apologies:**

- Prof CHAN Lung-sang (Honorary Professor, Dept. of Earth Sciences, HKU)
- Mr Wilson KWONG (Chairman, Environment and Sustainability Committee, HKGCC)
- Mr Samson SO (Director, Eco Institute)
- Mr. WONG Shui-sang (Chairman, Sai Kung Rural Committee)
- Mr Frederick YU (Chairman, China HK Mountaineering and Climbing Union)

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

Ref No.	Issues/Discussion	Follow-up Actions and Responsible By
1	<p><b>Introduction of 10<sup>th</sup> SLG Meeting Outline</b></p> <p>1.1 The Facilitator began the 10<sup>th</sup> Stakeholder Liaison Group (SLG) meeting by introducing the CLP representative to the SLG members.</p> <p>The Facilitator stated that the SLG members will be requested to keep confidential any restricted/proprietary information received or discussed as part of the SLG meetings, and meeting minutes, membership and associated documents will be made available to the public within one month of each HKOWF-SLG meeting through a dedicated website. The Facilitator clarified that meeting was recorded only to assist minute taking and will be deleted after the use.</p> <p>1.2 The HKOWF Project Director from CLP Power also gave a welcome address.</p> <p>1.3 Senior Environmental Manager (SEM) outlined the following information would be presented in the meeting: i) Project Progress Updates, ii) Meteorological Mast Removal Updates, iii) Exploring Expanding the Scope of HKOWF, and iv) AOB.</p>	
2	<p><b>Project Progress Updates</b></p> <p>2.1 The SEM 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 currently working on the feasibility and pre-engineering work studies, planned to include offshore wind farm in the 2024-2028 development plan to support HKSAR Government's decarbonisation target to achieve carbon neutrality before 2050, and to increase renewable energy in fuel mix to align with decarbonisation strategies for Hong Kong.</p> <p>2.2 The SEM explained that feasibility studies on Landing Site and Export Cable Route were conducted after Environmental Protection Department (EPD) 's approval of a Variation of Environmental Permit (VEP) application for adoption of larger wind turbines for the Project in April 2021. Furthermore, VEP application for proposed adjustments on cable landing point and cable alignment were submitted to EPD on 12 August 2022 and approved on 5 September 2022.</p>	

	<p>2.3 The SEM stated that the project will undergo statutory procedures under Foreshore and Sea-bed (Reclamations) Ordinance. Public comments would be invited during the consultation period.</p> <p>2.4 The SEM pointed out that the key elements will remain unchanged. The SEM explained the project is located about 9 km east of Clear Water Bay. The Offshore Wind Farm will contain total of 17-31 wind turbines which unit capacity of 6.45MW to 15MW. There will be one offshore substation and array cables within the wind farm. Moreover, maximum of 4 sets of transmission cable would be exported from wind farm to shore landing point.</p> <p>2.5 The SEM presented figures showing revised export cable landing location, alignment and the variation of export cables in the original EP and VEP.</p> <p>2.6 The SEM stated that preliminary SI works covering the wind farm area and export cable corridor were completed in July 2022. Surveys conducted to assess the geotechnical and geo-environmental properties to understand the ground conditions and to confirm the feasibility of the suction bucket foundations.</p> <p>2.7 The SEM explained that detailed SI works is being planned at wind turbine locations to facilitate detailed design and government approval submission.</p> <p>2.8 The SEM stated that there are 4 on-going technical studies, including, Preliminary Basic Design, Marine Traffic Impact Assessment, Aviation Impact Assessment and Cable Burial Risk Assessment.</p> <p>2.9 The SEM laid out the estimated timeline of the project development programme.</p>	
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<p><b>3</b></p>	<p><b>Meteorological Mast Removal</b></p> <p>3.1 The SEM stated that Meteorological Mast data collection was completed and the Meteorological Mast was removed from the seabed and loaded onto the barge on 3 September 2022.</p> <p>3.2 The SEM stated that the removed mast will be disposed of appropriately according to established procedure.</p>	
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4	<p><b>Feasibility of Expanding the HKOWF</b></p> <p>4.1 The SEM stated that CLP is actively exploring the wider and larger-scale development of renewable energy projects in Hong Kong, including looking into the feasibility of expanding the HKOWF.</p> <p>4.2 The SEM pointed out that development of offshore wind power project plays an important role in meeting HKSAR’s policy targets of achieving 7.5% to 10% renewable energy targets by 2035.</p> <p>4.3 The SEM emphasized that the feasibility of expanding the HKOWF is still at an early exploratory stage and more information will be communicated with stakeholders in due course.</p>	
5	<p><b>Group Discussion</b></p> <p>5.1 The Facilitator invited the SLG members for group discussion.</p> <p>5.2 A SLG member stated there was a Declared Monument Site - Chinese Customs Station near the Fat Tong Chau cable landing site and raised concern about construction impact on the Site of Archaeological Interest and Declared Monuments Site. The Facilitator replied that the impacts had been assessed in the VEP application and Horizontal Directional Drilling (HDD) would be adopted for cable route construction to avoid direct drilling beneath the ruins and hence no adverse impact is anticipated. The SLG member further asked whether site investigation would be carried out at the seabed for marine archaeology. The Facilitator replied that geophysical surveys would be conducted in later stage prior the construction. This is one of the requirements under the Environmental Permit (EP).</p> <p>5.3 A SLG member asked the project details required and procedures for the gazetting under the Foreshore and Sea-bed (Reclamations) Ordinance and public consultation. The SEM and Facilitator explained the required documents for the application. The Facilitator further explained that the HKOWF development was confined by the EP requirements and relevant government department/parties and district council would be consulted during the process.</p> <p>5.4 A SLG member asked whether follow-up action had been taken regarding the bird collision risk concerns raised by relevant organisations during the latest VEP application. The Facilitator responded that the baseline data presented in the Environmental Impact Assessment (EIA) had been reassessed in the latest VEP application and concluded still valid. Bird collision assessment was conducted in the VEP application and findings shown consistent with the EIA. The Facilitator also</p>	

	advised that meeting with birds protection organisation was arranged and bird monitoring measures were discussed.	
5.5	A SLG member asked the capacity of the HKOWF, target capacity of the expansion and strategy of expanding the HKOWF including whether it is feasible to expand beyond Hong Kong Water. The Project Director explained that the CLP HKOWF would contribute to 1.5 to up to 2% of the CLP's total power generation. The Project Director stated that further investigation would be carried out for the potential expansion of HKOWF and other opportunities of wind power development.	
5.6	A SLG member asked the wind profile at the HKOWF area, the Project Director briefly described the wind profile at the HKOWF area.	
5.7	A SLG member questioned that investigation on the 17-31 nos. of wind turbine locations had been carried out, if layout of 17 nos. of wind turbines were designed, could the HKOWF been expanded in the remaining area. The Project Director explained that the layout of 17-31 nos. of wind turbine under the EP requirement allowed the flexibility to select different size of wind turbines, wind turbines and their locations needed to be designed so that the layout to be optimised. The windfarm would be designed as a whole to optimise the energy generation.	
5.8	A SLG member asked whether the impact of earthquakes has been considered in suction caisson foundation design and any precedent case being installed around the world. The Project Director explained with example that the foundation of the large Seagreen Wind Farm in southeast Scotland, UK has adopted suction caisson jacket design. Geotechnical study was conducted by CLP Power to support the execution from the technical and geotechnical perspective.	
5.9	A SLG member asked whether regular maintenance required to maintain the negative pressure at the suction caisson foundation. The Project Director responded that monitoring programme would be installed to monitor tilting and settling, and explained the difficulties in monitoring the pressure.	
5.10	A SLG member questioned if the development time of the HKOWF could be shortened. The Project Director explained and described the investigation process required to determine the suitability of site for foundation and the selection of wind turbine for the HKOWF project, and also the time required to comply with all statutory requirements.	
5.11	A SLG member asked that any further review or re-assessment on the fisheries impact has been conducted since the EIA approval which was obtained long time ago. The Facilitator explained that,	

	<p>review on fisheries impact has been conducted based on the latest fisheries data in previous VEP applications, and findings are consistent with the approved EIA.</p>	
5.12	<p>A SLG member suggested CLP Power to notify the fisheries stakeholders in advance for the site investigation and marine works of HKOWF project. The Facilitator responded that CLP Power will engage and communicate with fisheries stakeholders for site investigation and marine works in the future.</p>	
5.13	<p>A SLG member asked about the measures to provide support and assistance to the affected fishery sector. The Facilitator responded that under the EP, a Fisheries Enhancement Plan should be prepared in consultation with the fishery sector and Agriculture, Fisheries and Conservation Department (AFCD) before the commencement of construction of the Project.</p>	
5.14	<p>A SLG member raised a concern that the revised cable route is located near the Tung Lung Chau Fish Culture Zone (FCZ) and any mitigation measure will be implemented. The Facilitator explained that the findings from the VEP applications are in consistent with the approved EIA, consultation with fisheries stakeholders including stakeholders from Tung Lung Chau FCZ will be engaged prior to consultation with District Council and gazetting.</p>	
5.15	<p>A SLG member asked if information of the cable construction near the Tung Lung Chau FCZ and information of the Fisheries Enhancement Plan would be available for the stakeholders in advance. The SEM supplemented that there is no change of cable construction method from the EIA report. Fisheries stakeholders will be consulted for the development of the Fisheries Enhancement Plan.</p>	
5.16	<p>The Facilitator reported a written enquiry received from a SLG member. The SLG member queried that after all these years coral communities may have established around the structures of the meteorological mast before the removal. The SLG member asked whether there was any underwater study conducted regarding the status of coral community/marine creatures associated with the structure and will it be feasible to keep the underwater structure and remove the above water section if marine community has been well-established around the underwater structure. The Facilitator responded that meteorological mast was removed and worth mentioning from the video presented, some pioneer species such oyster and barnacle were observed colonised at the underwater structure.</p>	
5.17	<p>The Facilitator reported another written enquiry received from the SLG member. The SLG member queried that in long term the underwater parts of the proposed wind turbines can be used as artificial</p>	

	<p>reef for coral community to colonise. Whether there is any special design of the 'base' of the wind turbines to enhance the ecological functions. The Facilitator responded that under the EP requirement, the Fisheries Enhancement Plan incorporating measures including deployment of artificial reefs will be developed.</p> <p>5.18 A SLG member suggested artificial reefs can be deployed around and within the windfarm boundary if access near the wind turbine is restricted to enhance the ecological resources and beneficial to fishermen and water recreational activities. The Facilitator responded that this suggestion will be further investigated in the Fisheries Enhancement Plan.</p> <p>5.19 A SLG member suggested that the potential of offsite enhancement can be considered. The Facilitator responded that offsite enhancement measures will be considered and investigated in the Fisheries Enhancement Plan.</p> <p>5.20 A SLG member suggested to consider the feasibility to deploy oyster reefs at the wind turbines area to enhance the ecological resources. The Facilitator responded that the feasibility of deploying oyster reefs will be investigated in the Fisheries Enhancement Plan in consultation with stakeholders and other relevant parties.</p>	
<p><b>6</b></p>	<p><b>Conclusion</b></p> <p>6.1 The SEM stated this SLG Meeting is the 3rd meeting for the 5th Term of the HKOWF SLG. The current 2-year SLG Membership will end in early 2023. The Project Director thanked all members' support, valuable opinions and dedication in contributing to the betterment of the HKOWF Project, working together to achieve carbon neutrality in Hong Kong. Invitation for next term of the SLG Membership will be sent out in early 2023.</p> <p>The 10th SLG meeting ended at 3:00 pm.</p>	<p>Meeting minutes will be circulated among all SLG members for agreement and posted on website within one month of the 10<sup>th</sup> SLG meeting.  <a href="http://www.clp.com.hk/offshorewindfarm">www.clp.com.hk/offshorewindfarm</a></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.*