

Taiwan Offshore Wind Farms Chan Fang and Xidao

Environmental and Social Impact
Assessment Non-Technical Sum-
mary

CI WIND POWER DEVELOPMENT TAIWAN CO LTD

25 NOVEMBER 2019

Contents

Project ID: TT2002
Document ID:
XTAXEUDDNY4W-75177900-785
: 26-11-2019 15:38
Revision FINAL

1	Introduction	3
2	Description of the Project	4
3	Policy, Legal and Administrative Framework	10
4	Description of the Baseline	12
5	Anticipated E&S Impacts and Mitigation Measures	14
6	Environmental and Social Management System	17
7	Information Disclosure, Consultation and Participation	17
8	Grievance Redress Mechanism	19
9	Conclusion and Recommendations	20
10	References	20

Figure 1.1: Process diagram of the linkage between ESIA documents	3
Figure 2.1: Project area and offshore export cable route.....	5
Figure 2.2: Landfall area, onshore export cable route and substation	6
Figure 2.3: The original project area reduced as a mitigation measure to account for potential impacts to marine mammals (TWD) and birds	7
Figure 2.3: Representation of the TWD's Ecological Appropriate Area	8
Figure 2.4: Wind farm projects in the Changhua area.....	9
Figure 2.5: Project milestones	10
Table 3.1: Key E&S legislative frameworks relevant to offshore wind.....	10
Table 4.1: Baseline data sources and coverage	12
Table 5.1: E&S impact and mitigation measure summary table.....	14
Table 5.2: Environmental and social components that will be monitored at different stages of the projects' lifecycle.	16
Table 7.1: A summary of key stakeholder engagement activities	18
Table 7.2: A summary of how comments received have been addressed by the projects	19
Appendix 1: Translated EIA and DA Approval Letters from EPA.....	22
Appendix 2: E&S MS Framework	25

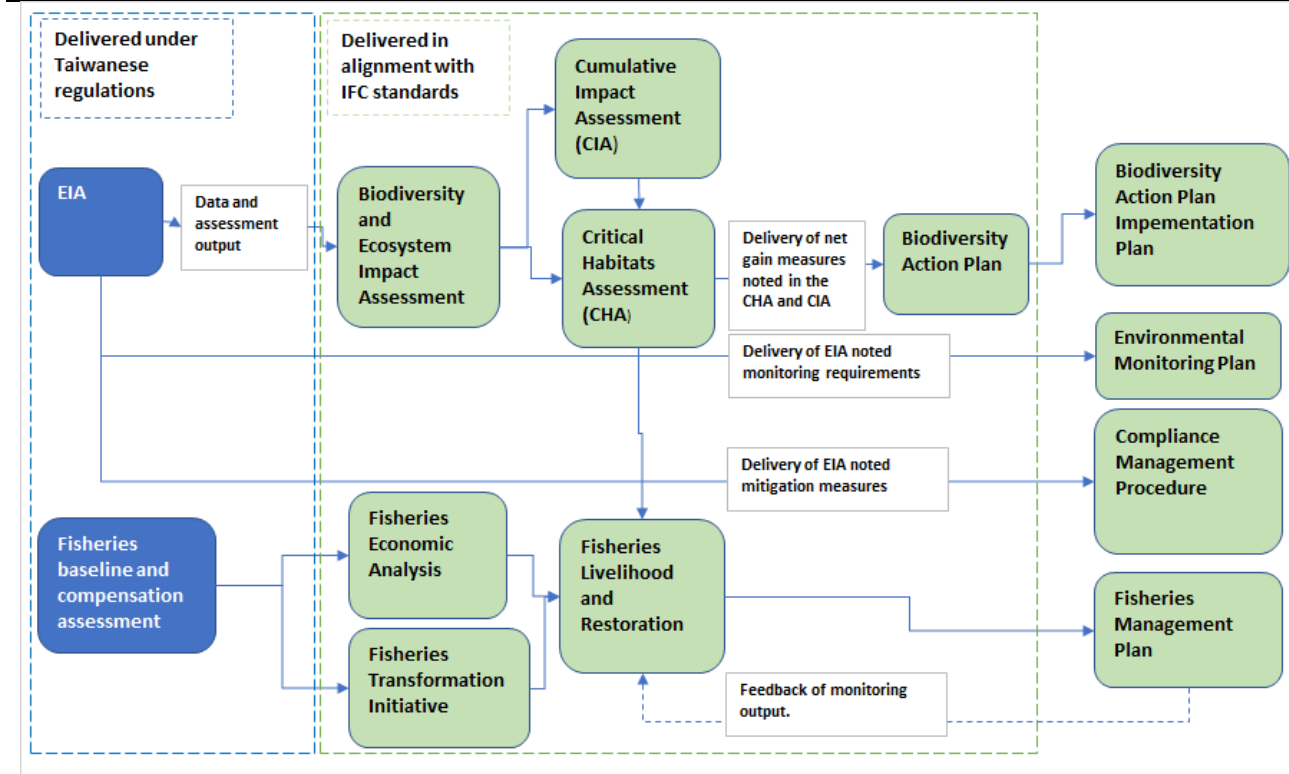
1 Introduction

The Chang Fang (CF) and Xidao (XD) offshore wind farms (the project or projects) are being developed by CI Wind Power Development Taiwan Co Ltd (A wholly owned subsidiary of Copenhagen Infrastructure Partners (CIP)). Construction is expected to start Quarter 1 2020. The projects are located within a zone allocated by the BoE for offshore wind development in the Changhua county on the west coast of Taiwan.

The drive for offshore wind development in Taiwan comes in response to the government’s renewable energy policies that aim to reduce Taiwan’s dependence on individual energy resources while meeting the island’s diverse energy demands. The government also has defined goals associated with greenhouse gas reduction and structural adjustments for low-carbon energy. In line with these policies and goals, the Offshore Wind Farm Site Application Regulations were announced in 2015 by the Bureau of Energy (BoE) with the government listing offshore wind as a key technology.

The projects have been selected under the regulations and were subject to environmental assessments to support consents through the Taiwanese permitting process. This involved consultation with a number of different authorities to gain Environmental Impact Assessment (EIA) approval. Following this approval, the projects were awarded grid capacity although this was at a lower scale than assessed in the EIA. The EIA was used as the foundation, in terms of data collection and assessment, to further develop a suite of documents aligned to international good practice (see Section 3.2 for further details). The linkage between these documents is highlighted in Figure 1.1 and they are collectively referred as the Environmental and Social Impact Assessment (ESIA) documents.

Figure 1.1: Process diagram of the linkage between ESIA documents



This Non-Technical Summary (NTS) provides a succinct summary of the Environmental and Social Impact Assessment (ESIA) documents noting the following:

- Description of the Project;
- Policy, Legal and Administrative Framework;
- Description of the Baseline and sources of information;
- Anticipated Environmental and Social (E&S) impacts and mitigation measures;
- E&S Management System;
- Information Disclosure, Consultation and Participation;
- Grievance Redress Mechanism; and
- Conclusions and Recommendations.

Further details on the documents summarised here within are available from CI Wind at cil@cop.dk

2 Description of the Project

2.1 Overview

Figure 2.1 shows the location of projects in the offshore waters of Changhua County west of Taiwan. The project area has been adapted from the initial layout highlighted in Figure 2.3 in delivery of in-built mitigation measures aimed at avoiding/mitigating impacts to marine mammals (TWD) and birds by reducing the project area (further information noted in Table 5.1). The development consists of the following main components:

- Total generation capacity of up to 600MW;
- 62 wind turbines of 9.5MW rated generating capacity;
- 3 legged jacket foundations each installed on three piles driven into the seabed;
- A network of circa 73 km combined length of 66kV inter-array, buried, subsea cables to connect strings of turbines together;
- 7 x 66kV buried, subsea export cables, totalling circa 209 km in combined length, to transmit the electricity from the offshore wind farms to the landfall at Lunwei District in Changbin Industrial Park;
- 7 x 66kV buried, onshore export cables, totalling circa 22 km in combined length, to transmit the electricity from the landfall to the onshore substation in Changbin Industrial Park;
- An onshore substation in Changbin Industrial Park, converting transmission voltage levels from 66kV to 161kV;
- 3 x 161 kV buried, export cables, totalling circa 5 km in combined length, connecting the onshore substation to the Taipower grid connection point, also within Changbin Industrial Park; and
- Minor ancillary works such as the deployment of met buoys and aids to navigation.

Figure 2.1: Project area and offshore export cable route

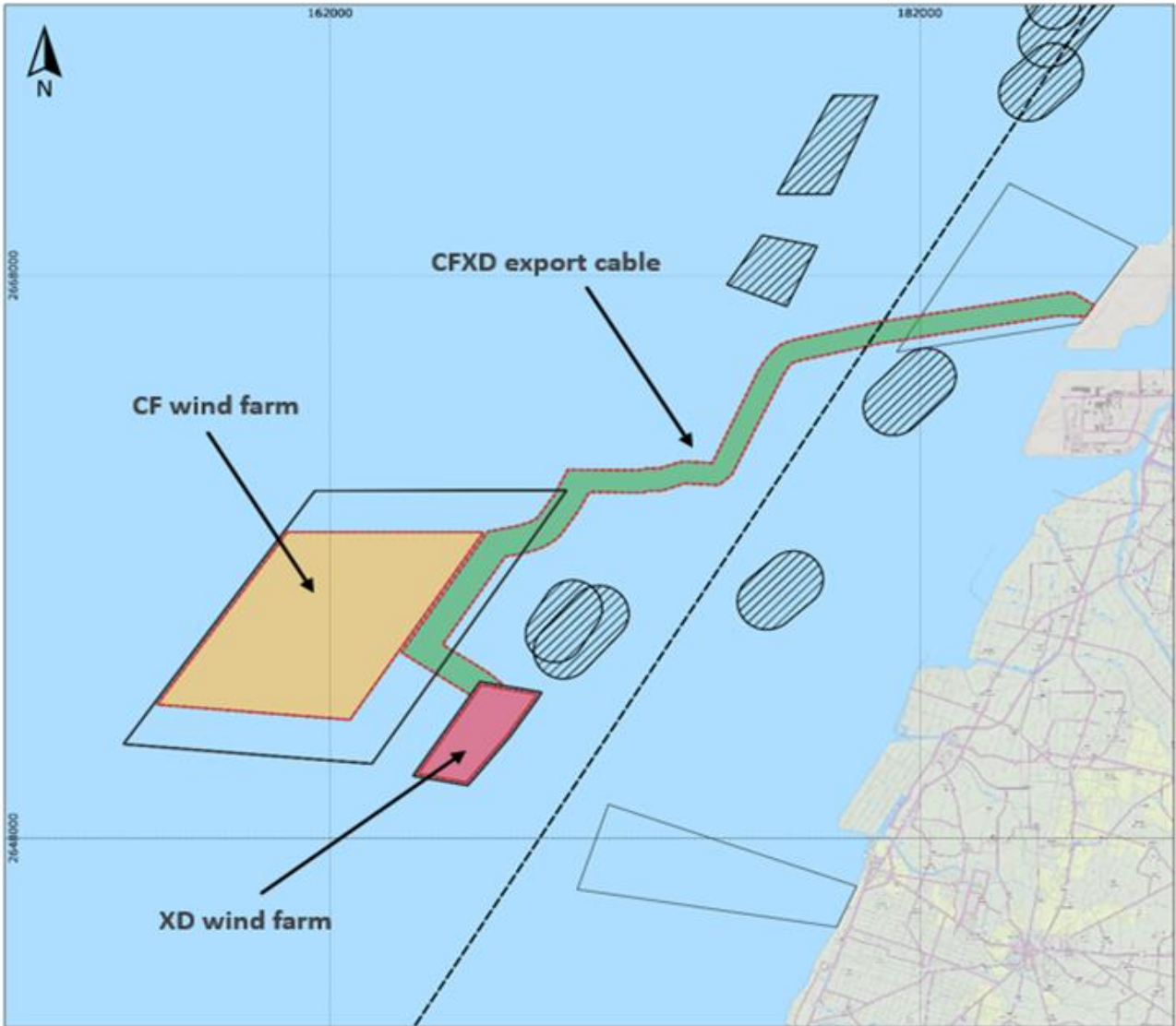
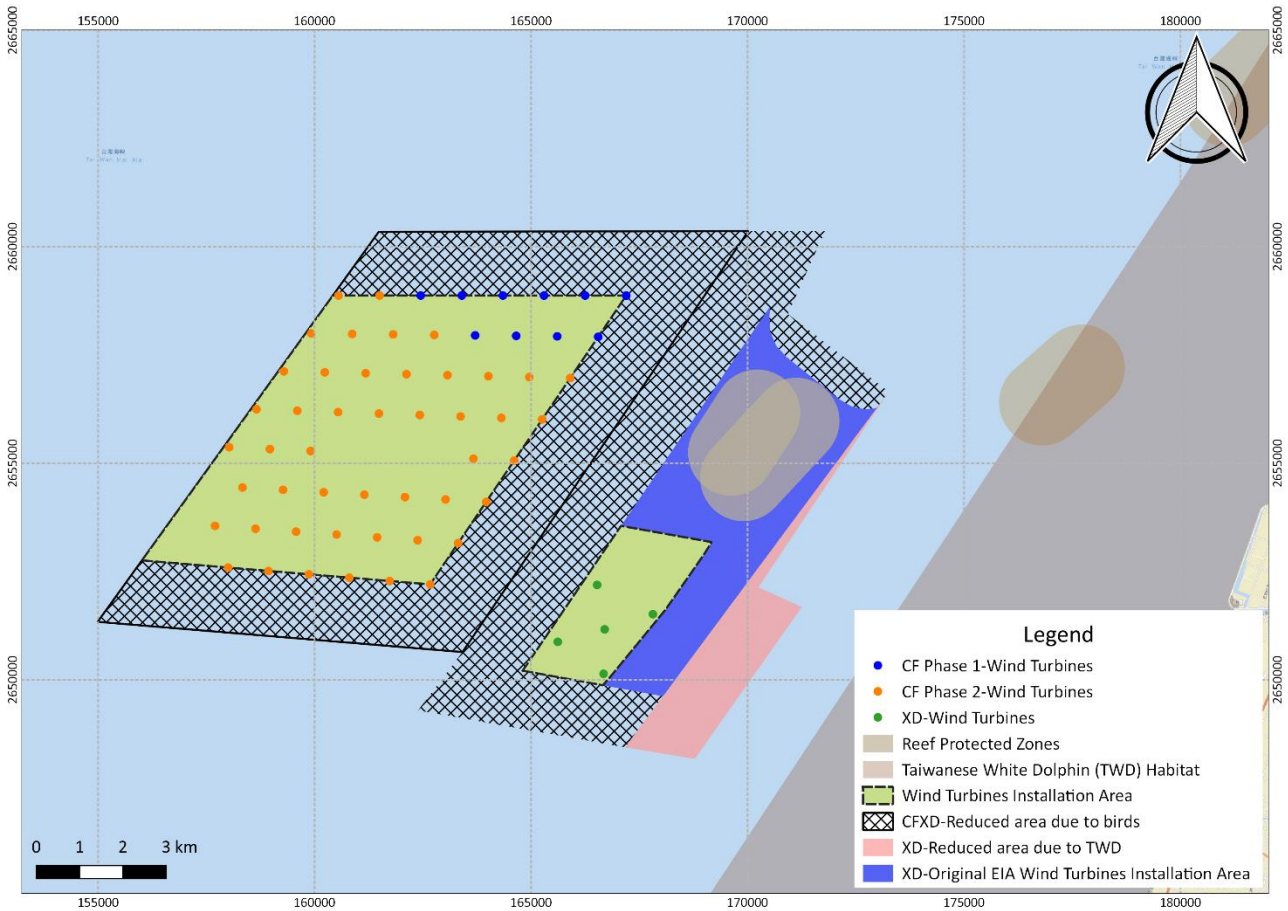


Figure 2.2: Landfall area, onshore export cable route and substation



Figure 2.3: The original project area reduced as a mitigation measure to account for potential impacts to marine mammals (TWD) and birds



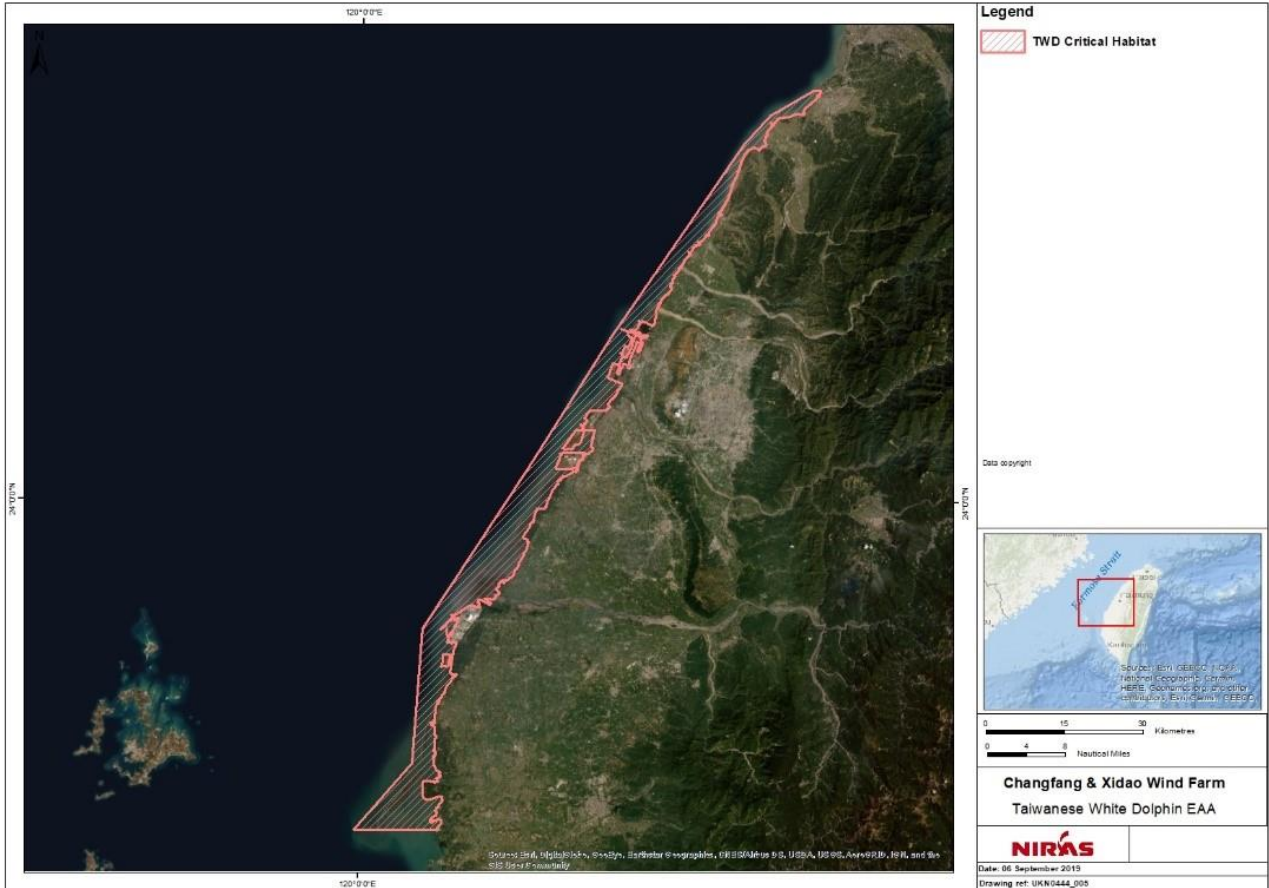
2.2 Project Setting

The key E&S features of the project setting are:

- A major wildlife habitat for Taiwanese white dolphin (TWD) *Sousa chinensis ssp. Taiwanensis*. The habitat is defined as a critical habitat under IFC’s Performance Standard 6 (International Finance Corporation, 2018). It has been spatially defined as the near-shore region off the west coast of Taiwan within the -32m iso-bath from Miaoli County in the north to Jiangiyun Harbour (Tainan City) in the south (Chou, LS, Lee, JD, 2010) (Figure 2.3). TWD is listed in International Union for Conservation of Nature (IUCN) red list as Critically Endangered.
- Taiwan is located on the East Asian–Australasian Flyway for migrating birds which has its focal point in the Yellow Sea to the northeast of Taiwan. A screening assessment undertaken to support the Critical Habitat Assessment (CHA) noted that threshold values outlined in the IFC’s Performance Standard 6 (International Finance Corporation, 2018) for Critical Habitat under Criterion 1 and/or 3 is surpassed for Black-faced Spoonbill *Platalea minor*.
- Changhua county is home to 3 main fishing ports and a significant fishing fleet of trawlers, gillnets and pole and line vessels.

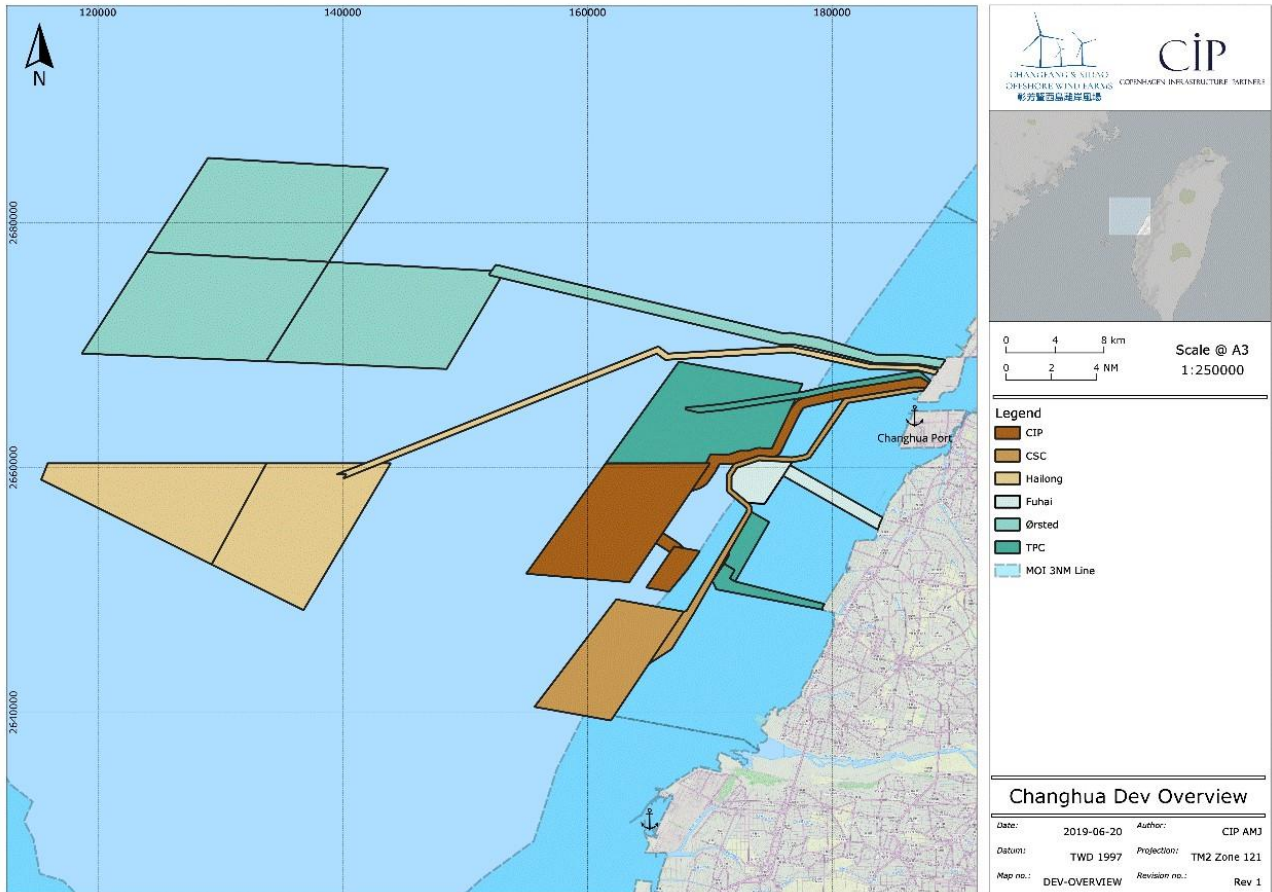
In assessing the potential impacts of the projects to these key features and other noted features, due consideration was provided to the projects’ area of influence and the overlap with a determined ecological appropriate areas for above ecological features.

Figure 2.4: Representation of the TWD's Ecological Appropriate Area



The projects' location was determined by zones allocated by the Bureau of Energy (BoE) for offshore wind. Figure 2.4 describes other windfarms with grid allocation that will be developed within this zone. The projects are 15-25km offshore of Fangyuan Township in Changhua County. The projects' ESIA documentation provided due consideration these windfarms and other reasonably foreseeable future actions on the valued environmental and social components in line with local regulations and recognised international standards.

Figure 2.5: Wind farm projects in the Changhua area



In addition to consideration of the reasonably foreseeable future actions, the supporting infrastructure listed below have been assessed in terms of the potential of their impact on E&S receptors to interact spatially and temporally with the projects.

- Taichung Port Pre-assembly base;
- Changhua Fishing Harbour Operations and Maintenance (O&M) base;
- Offshore wind specific (electrical) grid upgrades; and
- General grid upgrades.

It was concluded that owing to lack of impact pathways that these associated facilities were discounted from further consideration in the projects' Cumulative Impact Assessment (CIA).

2.3 Project Status

The projects have been developed in accordance with the milestones outlined in Figure 2.5. The projects are currently seeking project financing and therefore a E&S due diligence exercise has been conducted.

Figure 2.6: Project milestones

CFXD key development milestone	2015	2016	2017				2018				2019			
	Q1-Q4	Q1-Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Announcement of Zone Application for Planning	▲													
Site Application Recordation secured		▲												
Environmental Impact Analysis approved							▲							
Administration Contract for Grid Selection signed										▲				
Establishment Permit obtained											▲			
Power Purchase Agreement secured												▲		
Fishery compensation agreement signed (expected)														▲
Environmental & Social Due Diligence completed														▲
Financial close														▲

3 Policy, Legal and Administrative Framework

3.1 Taiwanese Setting

The projects have been subject to the extent of the Taiwanese permitting process involving a number of different authorities, including the Environmental Protection Administration (EPA), BoE, Ministry of Economic Affairs (MoEA), Taipower (state-owned power utility), local governments and other government agencies.

The key legislative frameworks relevant to the consideration of the E&S issues are outlined in Table 3.1

Table 3.1: Key E&S legislative frameworks relevant to off-shore wind.

Relevant legislation
<ul style="list-style-type: none"> • Wild Animal Conservation Act • Environmental Impact Assessment (EIA) Act • Fisheries Act • Regulations of underwater cultural resource investigation before development

Under the EIA Act, EIA approval requires the project company to prepare an EIA for review by the BoE and then by the EPA (termed a Phase I EIA review). If the EPA determines that there are no material impacts on the environment, and thus a Phase II review is not required, the project can be approved at this stage (i.e., the project company would need to conduct the Phase I EIA only).

For a Phase I EIA review (as considered to be required for the offshore wind sector) the following process applies:

1. Publication of the project overview information and an initial public meeting;
2. The submission of a draft, full-scale EIA report (including technical studies and consultations with key stakeholders);
3. An EIA report review by the Bureau of Energy (BOE) for clarification of potential legal issues which are not able to be determined by the EPA;
4. EPA's review of the draft EIA report and approval; and
5. Submission of a final EIA report for approval by the EPA.

The projects first submitted their EIAs in June 2017 and obtained EPA approval in January 2018. Since the approval of the original EIA report, the projects have submitted 2 major amendments to the EIA. These are referred to as Differential Analyses and approval for these amendments were obtained in December 2018 and October 2019 respectively.

Requirements and constraint of the Wild Animal Conservation Act are captured in the EIA, however, the other pieces of legislation listed in Table 3.1 are dealt with separately. Approval is sought directly from the Competent Authorities, for example, the Ministry of Culture or the Fisheries Agency.

3.2 International requirements

Through the E&S due diligence process, the assessments submitted to gain EIA approval have been further developed to align with the following standards:

1. International Finance Corporation (IFC) Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts
2. International Finance Corporation (IFC) Performance Standard 5: Land Acquisition and Involuntary Resettlement
3. International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

This involved the production of the Critical Habitat Assessment (CHA), Cumulative Impact Assessment (CIA) and Fisheries Livelihood and Restoration plan (FLRP) with reference to the following guidance notes and good practice handbooks:

1. Baseline Assessment and Development of a Fisheries Livelihood and Restoration Plan (International Finance Corporation, 2015)
2. Good Practice Handbook Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets. (International Finance Corporation, 2013)
3. Guidance Note 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources. World Bank Group. (International Finance Corporation, 2018)
4. Weaving Ecosystem Services into Impact Assessment A Step-by-Step Method. (World Resources Institute, 2019)
5. Guidance Note 5 Land Acquisition and Involuntary Resettlement (International Finance Corporation, 2012)

In addition, the project has developed an Environmental and Social Management System (ESMS) to manage environmental and social tasks and commitments.

4 Description of the Baseline

Baseline data as noted in the Projects' EIAs are summarised in Table 4.1 and provided the foundation for the assessments noted above.

Table 4.1: Baseline data sources and coverage

Category	Environmental and or Social component	Source	Coverage	Remarks
Physical environment	Metocean conditions	Desk-based data from 5 sources and project-specific survey date	Desk-based: Survey stations close to wind farm area, 2006-2016 Project-specific survey: Metocean buoys around wind farm area, May 2015-Aug. 2016	Data reported as been collected and assessed in accordance with EPA guidelines, other relevant guidelines where applicable and processed in certified laboratories. In the absence of local guidelines proxies have been applied for example the Japanese national standards on domestic vibration limits.
	Seawater quality	Desk-based data from 5 sources and project-specific survey data collection from 9 survey location.	Survey stations close to wind farm area, along the on shore cable route 2016-2019	
	Air Quality	Desk-based data from 1 source and project-specific survey	Desk-based data: Survey stations close to project onshore facility, 2015-2016 Project-specific survey stations close to cable landing point, Jul. 2016 – Jan. 2018	
	Noise and Vibration	Project-specific survey	Survey stations close to wind farm area, along the on shore cable route and close to onshore substation, Jul. 2016- Feb. 2018	
	Hydrology and water quality	Desk-based data from 1 source and project-specific survey	Survey stations close to project onshore facilities, Jul. 2016- Sep. 2017	
	Soils and geology	Desk-based data from 1 source and project-specific survey	Survey stations close to project onshore facilities, Jul. 2016- Sep. 2017	
	Electromagnetic field	Project specific survey data	Survey stations close to project landing point, onshore cable routes and onshore substations, Jan, 2017- Dec. 2018	
Biological environment	Terrestrial habitats and species	Desk-based data from multiple sources and project-specific data from area covering landing point, substation land, and nearby area	Survey stations close to wind farm area, along the on shore cable route and close to onshore substation 2016-2017	
	Marine Habitats and species	Up to 12 locations for Changfang and	Survey performed close to wind farm area, Mar.	

Category	Environmental and or Social component	Source	Coverage	Remarks
		10 locations for Xi-dao covering wind farm and export cable routes and a nearby windfarm (Zone 29) as a reference location	2016-Apr. 2018. Feb 2019	
Socio-economics	Populations	Desk-based data from 1 source	Data of Changhua county, 2006-2015	
	Fisheries	Desk-based data from multiple sources and project-specific survey	Data of Changhua county, 2002-2014 and project-specific survey: Community and fish landing data close to wind farm area, Feb. 2016- Feb. 2019	
	Transportation	Project-specific survey	Survey stations close to project onshore facilities, Mar. 2015- Feb. 2018	
	Cultural resources	Desk-based data from Multiple sources and project-specific survey	Desk-based data: 1997-2018 Project-specific survey: Survey stations close to project onshore facilities, wind farm area and export cable route, Jan. 2017-Feb. 2018.	

The EIA and associated Differential Analyses (DA) are published on the Environmental Protection Agency's (EPA) Website and can be accessed via the following hyperlinks [November 2019];

Chang Fang EIA

- EIA <https://eiadoc.epa.gov.tw/EIAWEB/10.aspx?hcode=1060631A&srctype=0>
- 1st DA <https://eiadoc.epa.gov.tw/EIAWEB/10.aspx?hcode=1070463A&srctype=0>
- 2nd DA <https://eiadoc.epa.gov.tw/EIAWEB/10.aspx?hcode=1080473A&srctype=0>

Xidao EIA

- EIA <https://eiadoc.epa.gov.tw/EIAWEB/10.aspx?hcode=1060581A&srctype=0>
- 1st DA <https://eiadoc.epa.gov.tw/EIAWEB/10.aspx?hcode=1070503A&srctype=0>
- 2nd DA <https://eiadoc.epa.gov.tw/EIAWEB/10.aspx?hcode=1080463A&srctype=0>

The translated EIA and DA approval letters are provided in Appendix 1

5 Anticipated E&S Impacts and Mitigation Measures

5.1 E&S Impact and Mitigation Measures

Table 5.1 describes significant impacts to receptors or valued environmental or social components as noted by the projects' EIAs, CHA, CIA and FLRP. The impact ratings before the application of mitigation measures are noted, along with a brief description of the mitigation measures and residual impacts. Further reference is provided to the applicable assessment standards where the assessment has been undertaken to meet local and/or fulfil international standards as reference in Section 3.

Table 5.1: E&S impact and mitigation measure summary table

Description of impact	Receptor or valued environmental or social component	Impact assessment before mitigation	Mitigation measures/measures are planned to secure biodiversity gain	Impact assessment after mitigation (Residual Impact)	Reference to applicable assessment standards
Piling – increase under-water noise during construction	Marine mammals specifically the Taiwanese White Dolphin's (TWD) Critical habitat	Significant	<ul style="list-style-type: none"> Reduction in the project area to move further away from the TWD habitat. Best commercially available noise mitigation measures noise abatement measure. No simultaneous piling in project own developments Soft start techniques Visual observations 30 minutes prior to piling Passive acoustic monitoring during piling Noise monitoring during piling Daytime piling Cetacean rescue centre Research on wind farm impact to fishery stocks & TWD habitat Support for one or more local or regional monitoring programmes 	Insignificant	EIA, CHA, CIA
Marine traffic and general marine construction activities during construction and operation	Marine mammals and the TWD's Critical habitat	Significant	<ul style="list-style-type: none"> Vessel speed limits Specific routing requirements Cetacean Rescue Centre Marine mammal Code of Conduct Education Programme 	Insignificant	EIA, CHA, CIA
Introduction of invasive species during	Marine mammals	Significant	<ul style="list-style-type: none"> Standard pollution control measures 	Insignificant	CHA, CIA

Description of impact	Receptor or valued environmental or social component	Impact assessment before mitigation	Mitigation measures/measures are planned to secure biodiversity gain	Impact assessment after mitigation (Residual Impact)	Reference to applicable assessment standards
construction and operation	and elasmobranchs		<ul style="list-style-type: none"> Compliance with anchorage and MARPOL regulations including the International Convention for the Control and Management of Ships' Ballast Water and Sediment Convention 		
Displacement of Fisheries during operation	Marine mammals and the TWD's Critical habitat	Significant	<ul style="list-style-type: none"> Support for cage fisheries research (potentially providing alternative livelihood for fishermen and reducing pressure from fisheries) Cetacean Rescue Programme 	Insignificant	CHA, CIA
Operational impact to ornithological interests	Offshore ornithological interests	Species and impact dependent: no impact to high impact ¹	<ul style="list-style-type: none"> Wind turbine spacing intervals at least five times the rotor diameter Height above sea level of the turbine blades has been increased Spaces for bird passage corridors The minimum number of aviation warning lights will be installed Research funding in black-faced spoonbill disease identification and control 	Insignificant	EIA, CHA, CIA
Access restriction to some key fishing grounds	All fishermen/crew and vessel owners	Moderate during construction and major during operation.	<ul style="list-style-type: none"> Guard vessel contracting opportunities O&M job opportunities HSE & Marine training and advisory services Direct Community Consultation Notification to mariners of construction activities Net cage fishing research Compensation via application of a government back compensation calculation. 	Subject to further monitoring activities to be initiated prior to offshore construction	FLRP
Movement of fishing activities from one fishing ground to another		Moderate during operation.			

¹ The assessment methodology applied to ornithological impact assessment in the CHA and the FLRP differs from the standardised approach and therefore the description of significance varies.

5.2 Environmental Monitoring

The projects have committed to the monitoring of environmental or social components, outlined in Table 5.2, under the Taiwanese consenting regime in the pre-construction, construction and operation phases of the projects (as noted in the CFXD Compliance Register and Environmental Monitoring Plan (EMP)). The project have also committed to further monitoring activities in the CHA, CIA and FLRP as noted below the table.

Table 5.2: Environmental and social components that will be monitored at different stages of the projects' lifecycle.

Environmental or social components	Monitoring period	Consent reference
Bathymetry survey	All stages of the project lifecycle	Coastal Management Plan
Ecology survey	All stages of the project lifecycle	
Water quality monitoring	All stages of the project lifecycle	
Cetacean ecology	Pre-construction, construction and operation	EIA
Bird ecology	Pre-construction, construction and operation	
Marine ecology	Construction and operation	
Onshore ecosystems	Construction	
Fishery economics	Construction and operation	
Cultural heritage	Pre-construction and construction	
Marine substrate	Pre-construction	
Sea-water quality	Construction	
Air quality	Construction	
Noise and vibration	Construction	
Underwater noise	Construction and operation	
Electromagnetic field	Operation	

The following environmental monitoring requirements were noted in the CHA, CIA and FLRP assessments (NB: there is some repetition between these requirements and those of the EIA):

- Monitoring of underwater noise levels during pile driving to ensure that received noise levels within the critical habitat area for TWD is below the noted threshold levels.
- High-efficiency monitoring devices to be installed at appropriate locations in the wind farms in accordance with regulations of the competent authority to facilitate bird monitoring operations.

- At least two years of bird radar survey before offshore construction begins. The survey is conducted five times every quarter, 24 hours each time and integrated with satellite bird banding to collect data regarding bird migration paths.
- Detection and monitoring of future outbreaks of botulism amongst Black-faced Spoonbill.
- Validation of compensation using socioeconomic baseline data.
- Fisheries impact monitoring to establish the success or failure of mitigation, compensation and fisheries transformation measures.

6 Environmental and Social Management System

An Environmental and Social Management System (ES MS) has been prepared to manage all project Environmental and Social (E&S) tasks. The ES MS includes processes and plans that address the specific obligations of the EIA approval and other consents and permits from the Taiwanese authorities. The ES MS also includes processes and plans to manage commitments made under the CHA, CIA and FLRP, which are above the project consenting requirements.

A list of documents under the ESMS is provided in Appendix 2.

7 Information Disclosure, Consultation and Participation

7.1 Information Disclosure and Consultation

Stakeholder engagement is embedded throughout the EIA process concluding in the review of the submitted documentation in an open hearing.

As part of this process, the project has set up an Environmental Supervisory Committee (ESC). The ESC is a group of volunteers who will be continuously informed of and provide input towards environmental matters of the project. There will be 18 members in the ESC with the following makeup:

- 6 members are from local environmentalist groups, NGOs, and fishermen representatives in Changhua;
- 3 members are Taiwanese scholars and researchers in relevant fields;
- 3 members are students from Taiwanese colleges and graduate institutes;
- 3 members are Danish and European scholars and researchers in relevant fields; and
- 3 members are from the Taiwanese government and local think tanks.

7.2 Participation

The project has held its formal EIA public consultation and its first ESC meeting. The project has engaged in a significant volume of consultation activities targeting fishermen and the wider community. Consultation targeted at Project Affected People (PAPs) is planned at all stages of project implementation. Future activities aimed at these groups are planned regularly during 2020 and will continue through the construction. Details of planned future engagement sessions and frequencies, as well as historical records of meetings are provided in the CFXD Stakeholder Management Log.

Table 7.1 notes key stakeholder engagement activities and Table 7.2 provides a summary of comments and concerns received during project consultation along with how these have been addressed.

Table 7.1: A summary of key stakeholder engagement activities

Date	Event	Purpose
14 July 2017	EIA site inspection & project statement	Presentation of project information to the general public and government-appointed review panel to facilitate understanding of development planning and impacts.
2 February 2018	CIP's 'Banker's Day'	Experience sharing to local banks of project finance practices
13 March 2018	CIP's 'Lifer's Day'	Experience sharing to local life insurance companies of offshore wind investment and shareholding
22 June 2018	Private meetings with NGOs for cetacean preservation	Mutual experience sharing on cetacean protection and understanding of expectations
20 July 2018, 10 August 2018, 1 October 2018 & 6 March 2019	Community engagement sessions with resident of local townships	Presentation of project information to promote understanding and building of relationships
16 August 2018	Coastal Management Plan public hearing	Presentation of project information to the general public and government-appointed review panel to facilitate understanding of development planning and impacts
26 October 2018	CIP's Changhua Office Inauguration	Demonstration of localization effort and promotion of the project
9 November 2018	Suppliers Day	Supporting local government to improve local industry's understanding of offshore wind industry
10 November 2018	Changhua playground launching ceremony	Promotion of the project to local resident and relation building
12 November 2018	Localisation promotion event	Demonstration of localization efforts and promotions of the project
26 November 2018	Contract signing ceremony for HSE training program	Declaration to fishermen the project's determination to assist on fisheries industry transformation
15 & 16 January 2019, 21 & 22 March 2019	HSE workshops	Provision of HSE training to local fishermen who intend to transfer to work in offshore wind industry
30 August 2019	EIA pre-construction public consultation	Presentation of project information to general public to facilitate understanding of construction planning and impact
23 October 2019	Press conference for announcement of lunch funding	Joint developer funding to support government-offered lunch to local schools.

Table 7.2: A summary of how comments received have been addressed by the projects

Stakeholder group	Key areas of concern	Project responses and mitigations
Community	Economic and other benefits offered by the projects to local community	<ul style="list-style-type: none"> • Establishment of Near Shore Sustainability Development Fund • Establishment of local office and employment of local people
Fishermen	Compensation amount Initiatives to support transformation of fishing industry	<ul style="list-style-type: none"> • Compensation total calculated independently based on a governmental issued formula and negotiated with Changhua Fisheries Association • Formulation of Fishery Transformation Initiatives • Future surveys to understand baseline and effectiveness of compensation and transition plan
Non-Governmental Organisations	Project impacts on the environment and ecology	<ul style="list-style-type: none"> • Mitigation measures to avoid, mitigate and (if necessary) offset impacts • Environmental monitoring • Publication of monitoring data • Establishment of CFXD Environmental Supervisory Committee to provide transparency and obtain NGO feedback.
Local and national Government	Localization of offshore wind industry	<ul style="list-style-type: none"> • Facilitate cooperation between local and international suppliers to facilitate transfer of knowledge • Maximisation of local content within projects

8 Grievance Redress Mechanism

A grievance management and response task force, in charge of receiving, recording, managing and coordinating the evaluation and response of all grievances, will be set-up. Stakeholders may submit a complaint through various methods, including:

- Verbally during meetings with contractors or local communities, or through hotline of the Project;
- Filling up online complaint form online via a dedicated website;
- Sending an email to CIP official email address;
- Sending a letter; and
- For stakeholders having access to the Project's various sites and workplace, filling up a comment card for the HSE Suggestion Box

The Project has a target to inform the complainant about the results of the grievance within twenty business days, regardless of the decision made in relation to the grievance report. A summary of grievances shall be

published and communicated to all stakeholders during local community meetings, on the Projects' website, and through internal meetings with employees or contractors.

9 Conclusion and Recommendations

The projects have been assessed under the Taiwanese EIA law in order to gain relevant permits and consents. These assessments and their baseline data have formed the basis of the further assessment work to meet the requirements outlined under the IFC's Performance Standards. The assessments concluded that the projects will not have a significant impact on noted receptors and/or valued environmental and social components. The only exception to this is the impact to fisheries. This is subject to additional baseline data validation and monitoring.

Where there is any uncertainty in the conclusion made or in order to meet other requirements, monitoring programmes have been recommended and will be delivered through the ES MS or through separate mechanisms.

10 References

- Chou, LS, Lee, JD. (2010). *Habitat Hotspot of Humpback Dolphin, Sousa chinensis, and Master Planning for Conservation Management (in Chinese)*. Taipei: Forestry Bureau, Council of Agriculture, Executive Yuan.
- International Finance Corporation. (2012). *Guidance Note 5 Land Acquisition and Involuntary Resettlement*.
- International Finance Corporation. (2013). *Good Practice Handbook Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets*. World Bank.
- International Finance Corporation. (2015). *Addressing Project Impact on Fishing-Based Livelihoods: A Good Practice Handbook: Baseline Assessment and Development of a Fisheries Livelihood and Restoration Plan*. Washington D.C: International Finance Corporation.
- International Finance Corporation. (2018). *Guidance Note 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources*. World Bank Group.
- World Resources Institute. (2019, August 19). *Weaving Ecosystem Services into Impact Assessment A Step-by-Step Method*. Retrieved from <https://www.wri.org/publication/weaving-ecosystem-services-into-impact-assessment>: <https://www.wri.org/publication/weaving-ecosystem-services-into-impact-assessment>

Appendix 1: Translated EIA and DA Approval Letters from EPA

CF EIA approval letter

Environmental Protection Administration
Official Letter

Address: 10042, No. 83, Sec. 1, Zhonghua Rd., Zhongzheng Dist., Taipei City 100, Taiwan (R.O.C.)
Contact person: Huang, Pei-Yu
Contact no.: (02)23117722 #2747
Email: pyhuang@epa.gov.tw

10548, 15F., No. 170, Dunhua N. Rd., Songshan Dist., Taipei City 105, Taiwan (R.O.C.)
Recipient: Changfang Wind Power Co., Ltd. Preparatory Office
Issue Date: 2018/4/12
Issue No.: EPA No. 1070018261
Classification of Delivery: Standard
Confidentiality & Criteria of Access or Duration of Confidentiality:
Enclosure:

Subject: It is to confirm the recordation of the final document of Changhua Changfang Offshore Wind Project Environmental Impact Assessment Report.

Description:

1. In reply to the Preparatory Office's official letter Changfang No. 1070307BM dated 7 March 2018
2. Please refer to regulations of relevant authorities for the other consents and permits involved in the development project in question.

Director Li, Ying-Yuan

CF 1st DA approval letter

Environmental Protection Administration
Official Letter

Address: 10042, No. 83, Sec. 1, Zhonghua Rd., Zhongzheng Dist., Taipei City 100, Taiwan (R.O.C.)
Contact person: Huang, Pei-Yu
Contact no.: (02)23117722 #2747
Email: pyhuang@epa.gov.tw

110, 26F., No. 68, Sec. 5, Zhongxiao E. Rd., Xinyi Dist., Taipei City 110, Taiwan (R.O.C.)
Recipient: Changfang Wind Power Co., Ltd. Preparatory Office
Issue Date: 2018/12/14
Issue No.: EPA No. 1070095788
Classification of Delivery: Standard
Confidentiality & Criteria of Access or Duration of Confidentiality:
Enclosure:

Subject: It is to confirm the recordation of the final document of Changhua Changfang Offshore Wind Project Difference Analysis Report.

Description:

1. In reply to the Preparatory Office's official letter Changfang No. 1071122001 dated 22 November 2018
2. Please refer to regulations of relevant authorities for the other consents and permits involved in the development project in question.

Acting Director Cai, Hong-De

CF 2nd approval letter

Environmental Protection Administration
Official Letter

Address: 10042, No. 83, Sec. 1, Zhonghua Rd., Zhongzheng Dist., Taipei City 100, Taiwan
(R.O.C.)

Contact person: Huang, Pei-Yu
Contact no.: (02)23117722 #2747
Email: pyhuang@epa.gov.tw

Recipient: Changfang Wind Power Co., Ltd. Office
Issue Date: 2019/10/08
Issue No.: EPA No. 1080066443
Classification of Delivery: Standard
Confidentiality & Criteria of Access or Duration of Confidentiality:
Enclosure:

Subject: It is to confirm the recordation of the final document of Changhua Changfang Offshore Wind Project Difference Analysis Report (2nd DA).

Description:

1. In reply to the Office's official letter ChangFang No. 1080906001 dated 6 September 2019
2. Please refer to regulations of relevant authorities for the other consents and permits involved in the development project in question.

XD EIA approval letter

Environmental Protection Administration
Official Letter

Address: 10042, No. 83, Sec. 1, Zhonghua Rd., Zhongzheng Dist., Taipei City 100, Taiwan
(R.O.C.)

Contact person: Shang, Wei-Ting
Contact no.: (02)2311-7722 #2747
Fax: (02)2331-2958
Email: wtshang@epa.gov.tw

10548, 15F., No. 170, Dunhua N. Rd., Songshan Dist., Taipei City 105, Taiwan (R.O.C.)

Recipient: Xidao Wind Power Co., Ltd. Preparatory Office
Issue Date: 2018/4/12
Issue No.: EPA No. 1070018260
Classification of Delivery: Standard
Confidentiality & Criteria of Access or Duration of Confidentiality:
Enclosure:

Subject: It is to confirm the recordation of the final document of Changhua Xidao Offshore Wind Project Environmental Impact Assessment Report.

Description:

1. In reply to the Preparatory Office's official letter Xidao Wind Power No. 1070307BM dated 7 March 2018
2. Please refer to regulations of relevant authorities for the other consents and permits involved in the development project in question.

Director Li, Ying-Yuan

XD 1st DA approval letter

Environmental Protection Administration
Official Letter

Address: 10042, No. 83, Sec. 1, Zhonghua Rd., Zhongzheng Dist., Taipei City 100, Taiwan
(R.O.C.)

Contact person: Shang, Wei-Ting
Contact no.: (02)2311-7722 #2747
Fax: (02)2331-2958
Email: wtshang@epa.gov.tw

110, 26F., No. 68, Sec. 5, Zhongxiao E. Rd., Xinyi Dist., Taipei City 110, Taiwan (R.O.C.)

Recipient: Xidao Wind Power Co., Ltd. Preparatory Office
Issue Date: 2018/12/14
Issue No.: EPA No. 1070095784
Classification of Delivery: Standard
Confidentiality & Criteria of Access or Duration of Confidentiality:
Enclosure:

Subject: It is to confirm the recordation of the final document of Changhua Xidao Offshore Wind Project Environmental Impact Assessment Report.

Description:

1. In reply to the Preparatory Office's official letter Xidao Wind Power No. 1071122001 dated 22 November 2018
2. Please refer to regulations of relevant authorities for the other consents and permits involved in the development project in question.

Acting Director Cai, Hong-De

XD 2nd DA approval letter

Environmental Protection Administration
Official Letter

Address: 10042, No. 83, Sec. 1, Zhonghua Rd., Zhongzheng Dist., Taipei City 100, Taiwan
(R.O.C.)

Contact person: Shang, Wei-Ting
Contact no.: (02)2311-7722 #2744
Fax: (02)2331-2958
Email: wtshang@epa.gov.tw

Recipient: Xidao Wind Power Co., Ltd. Office
Issue Date: 2019/10/08
Issue No.: EPA No. 1080066444
Classification of Delivery: Standard
Confidentiality & Criteria of Access or Duration of Confidentiality:
Enclosure:

Subject: It is to confirm the recordation of the final document of Changhua Xidao Offshore Wind Project Environment Differential Analysis Report (2nd DA).

Description:

1. In reply to the Office's official letter Xidao Wind Power No. 1080906001 dated 6 September 2019
2. Please refer to regulations of relevant authorities for the other consents and permits involved in the development project in question.

Appendix 2: E&S MS Framework

	Document Title
0.0	CFXD Environment and Social Management System Overview
1.0	Policies
1.1	HSE Policy
1.2	Social Policy
2.0	Organisation
2.1	CFXD HSE, Consents and Stakeholder Management Organisation
3.0	Consents Management
3.1	CFXD Consents Management Procedure
3.1.1	CFXD Regulatory Overview
3.1.1.1	CFXD Consents Index
3.1.2	CFXD Consents Programme
3.1.2.1	CFXD Consents Status Log
3.1.3	CFXD Consents Reporting Plan
4.0	Obligations Management
4.1	CFXD Compliance Management Procedure
4.1.1	CFXD Compliance Register
5.0	Stakeholder Management
5.1	CFXD Stakeholder Engagement Plan
5.1.1	Stakeholder Management Log
5.2	Nearshore Sustainable Development Fund - Terms of Reference
5.2.1	Nearshore Sustainable Development Fund Implementation Plan
6.0	Grievance
6.1	CFXD Grievance Mechanism

6.1a	CFXD Grievance Mechanism Log
6.1.1	CFXD Grievance Mechanism Internal and External Training
6.1.1a	CFXD Grievance Mechanism Internal and External Training Log
7.0	Environmental Management
7.1	CFXD Environmental Management Plan
7.1.1	CFXD Biodiversity, Critical Habitat and Cumulative Impact Assessment
7.1.1.1	CFXD Biodiversity Action Plan
7.1.1.1a	CFXD Biodiversity Action Plan – Implementation Plan
7.1.2	CFXD Environmental Management Plan (Operational)
7.1.3	Environmental Monitoring Plan
7.2	Environmental Supervisory Committee Terms of Reference
8.0	Fisheries Management
8.1	Fisheries Livelihood and Restoration Plan
8.2	Overview Fishery Compensation Calculation [Government Formula-Prof Ou]
8.2a	Fishery Compensation Calculation [Government Formula-CFXD]
8.3	CFXD Fishery Compensation and Collaboration Agreement
8.4	CFXD Fishery Transformation Initiative Report
8.5	CFXD Fishery Management Plan
9.0	Land Management
9.1	Land Lease Index