



British-Taiwanese All-Party Parliamentary Group

Offshore Wind a UK-Taiwanese success story

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Introduction

Taiwan has long been a beacon in the Indo-Pacific region for the values and priorities of the western world. It has a vibrant democracy, a thriving free market economy and a record on human rights and freedom that compares with the very best.

In recent years Taiwan has also been a pioneering leader in the field of green energy and as an island, much like the UK, offshore wind has been a big focus of that push. Similarly to the UK Government, the Taiwanese Government is committed to a transition to green energy.

As this paper illustrates, offshore wind is a sector where the UK and Taiwan are already working closely together. Moreover, there is scope for deeper and closer cooperation moving forward too.

The UK is home to some of the world's leading offshore wind businesses making Taiwan with its ambitious offshore wind plans a major overseas market. Meanwhile, the UK's knowledge and expertise can also help Taiwan's own domestic offshore wind industry to grow, as well as help Taiwan's target of achieving Net Zero by 2050.

In this paper, the British-Taiwanese APPG highlights the significant achievements that have already been delivered. But there is scope for closer cooperation in this and other sectors too and the APPG urges the British Government to do the right thing and work closer with Taiwan on these issues, starting by extending a full invite to Taiwan to participate in the COP26 Conference in Glasgow this November.

As the offshore wind space shows, closer relations between the UK and Taiwan are beneficial for both of these island nations. Furthermore, those benefits also extend to the wider world.



Bob Stewart

Colonel the Rt Hon Bob Stewart DSO MP
Co-Chairman



Dennis Ford Rogan.

Lord Rogan
Co-Chairman

Background

When a government announces it is planning a transition, the usual response is a rolling of the eyes and an expectation that any meaningful change is likely to be decades away. But that's not how they do things in Taiwan.

Taiwan is one of the four Asian Tiger economies and since 1980 have managed to grow their GDP from US\$61.9bn to US\$1,300bn. It is a country that held its first fully-fledged democratic elections as recently as 1996, yet in the Democracy Index 2020 was the top-ranking democracy in Asia and the 11th best overall (ahead of the UK at 16th).

So, when the Taiwanese Government announces its intention to transition to clean green energy, you can be sure that, far from being a hollow political pledge, they mean business.

And so it has proved. In the early 2000's, 98% of Taiwan's energy came from imported fossil fuels; primarily coal and gas. Since then, the transition has begun apace:

Renewable Energy Development Act 2009

Announced a NT\$45 billion (US\$1.4 billion) investment in renewable energy.

Greenhouse Gas Reduction and Management Act 2015

Committed Taiwan to a 50% reduction in greenhouse gas emissions from 2005 levels by 2050.

Electricity Act 2017

Opened up the Taiwanese electricity market and promoted renewable energy generation.

Renewable Energy Development Act Amendments 2019

Provided a range of new and ambitious incentives for renewable energy producers with an overall target to generate 27 GW of clean energy by 2025 including 5.5 GW of offshore wind power (subsequently increased to 5.7GW).

Nuclear Power Phase Out confirmed

The current Taiwanese Government plans to phase out nuclear power generation in Taiwan. In January 2019, it confirmed that no new nuclear power plants would be built, and no life-extensions would be approved for existing plants.

The Road to Net Zero

In April 2021, Taiwan's President Tsai Ing-wen confirmed that Taiwan is plotting a path to achieve net zero emissions by 2050. This target will be achieved via an ongoing energy transformation and the development of systematic strategies to reduce emissions in sectors such as manufacturing, transportation, residential construction, and agriculture.

Taiwan's rapid transition towards green energy and its ambitious net zero target are welcomed by the APPG. We also note that the growth of its offshore wind sector from a standing start to where it is today and where it plans to be in just a few years' time is nothing short of phenomenal.

This is an area where the UK Government is showing global leadership ahead of the COP26 Conference. Yet so far, it has been curiously silent on Taiwan's ambitions and achievements. We would encourage Government to look closely at what Taiwan is trying to achieve and put this forward as a model for other countries to follow.

Taiwan's Green Energy Targets

- **Taiwan is aiming for 20% of its power to be generated from renewable sources by 2025.**
- **Taiwan aims to generate 5.6 GW of offshore wind power capacity by 2025.**
- **It plans to add an additional 1.5 GW of offshore wind capacity each year from 2026 until 2035.**

Open Market

Some countries have taken a protectionist approach to offshore wind developments which can act as a deterrent to international developers.

Geography

The Taiwan Straits has what the 4C Offshore report recently described as 16 of the top 20 offshore wind farms in development right now.

Taiwan has three major geographical advantages in developing offshore wind power:

1. Shallow Sea Water – The Taiwan Strait to the west of Taiwan has an average depth of less than 60 metres which can save wind turbine installation costs.
2. Reliable Wind Power – The Taiwan Strait is located between the Central Mountain Range and Wuyi Mountain Range creating a valley effect which offers excellent and reliable wind energy resources.
3. Stable Wind Direction – This valley effect also creates a stable wind direction which coupled with Taiwan's strong north-easterly monsoon creates ideal offshore wind conditions.

Not so Taiwan, which has a proven commitment to open markets. While there is a desire to develop a domestic market and a long-term ambition to become an offshore wind market leader to rival the UK, the desire to transition at speed means Taiwan needs the best offshore developers working on their plans.

Simpler Financing

The circumstances surrounding the Taiwanese offshore wind sector have made it far easier for international developers to secure financing for projects in Taiwan. The scale of Taiwanese government ambition for the sector, market openness, Taiwan's evolving electricity strategies, and the corporate Power Purchase Agreement (PPA) market all help to make Taiwan a hugely attractive market for financiers.

Why Taiwan is perfect for offshore wind development

Challenges

Challenging Conditions

Taiwan can be prone to typhoons and earthquakes as well as more specialised geographic challenges such as sand waves and soil liquefaction.

All of this presents challenges for the development, installation, and long-term maintenance of offshore wind farms as well as impacting insurance costs. But, all can and is being overcome using modern construction methods, careful planning and industry innovation.

Ports

With the exception of Taichung, which has received recent investment, most of Taiwan's ports are commercial or fishing ports and not always suited for offshore wind turbine assembly and installation.

However, the Taiwanese Government is committed to making a huge US\$23 billion infrastructure investment over the next ten years which will help to address this.

Local Skills

Establishing an offshore wind sector at pace inevitably means that there are limited local skills in some key sectors. Yet, there are local supply chain requirements for international companies entering the Taiwanese market.

However, Taiwan's flourishing advanced manufacturing industries, its thriving universities, and the volume of Taiwanese students studying in the UK and other countries are already addressing this shortfall and local skills in this sector are already escalating rapidly.



Taiwan's Offshore Wind Ambitions

Taiwan's Offshore Wind Strategy

The Taiwanese Government has established a hugely ambitious three-stage Offshore Wind Power strategy with the goal of moving from zero offshore wind to a target of 5.6 GW of wind power from offshore wind farms by 2025.

This ambition has made Taiwan the most sought-after Asian market for offshore wind developers both from the UK and beyond.

Stage 1: In July 2012, Taiwan's Ministry of Economic Affairs (MOEA) announced the implementation of its "Wind Power Offshore System Demonstration Incentive Measures", which saw private developer Formosa 1 Company and the state-owned developer Taipower Company contracted to develop and construct two offshore wind farms with a total capacity of 237 MW.

Stage 2: Three years later, the MOEA announced the "Directions of Zone Application for Planning" (ZAP) and confirmed 36 Zones of Potential (ZOP).

In 2018, the MOEA followed this up with its "Directions for Offshore Wind Potential Zones Installed Capacity Allocation". This was intended to ensure that offshore wind developments in Taiwan can grow stably and consistently and alongside it, a local supply chain and domestic manufacturing capability will develop.

On 30th April 2018, 10 applications from 7 developers were approved with a total capacity of 3,836 MW. On 22nd June 2018, a further 4 applications from 2 developers with an additional capacity is 1,664 MW were also approved.

In total, 5,700 MW of offshore wind capacity has now been approved and will be commissioned by 2025.

Stage 3: The final stage will see the MOEA implement its "Offshore Zonal Development" strategy in which projects will be built at a commercial scale to promote domestic industry in Taiwan and continue to increase Taiwan's offshore wind capacity.

The MOEA plans to release 1.5 GW of capacity every year from 2026 to 2035.

Taiwan's Offshore Wind Sector – The present

It was originally planned to have four offshore wind farms fully completed and operational by the end of 2021. However, the impact of COVID-19 means that only two will be fully online. Part of the Yun-Neng Wind Farm Phase 1 will also be complete with 160 MW of capacity meaning that the total accumulated capacity of offshore wind will reach 397 MW by the end of 2021.

Two more will be partially operational and a further three will be completed and operational by the end of 2022.

Formosa 1 Offshore Wind Farm

Both phases of the Formosa 1 wind farm are now complete and Formosa 1 went fully operational in December 2019. It has a total capacity of 128MW.

Taipower 1 Offshore Wind Farm

Taipower has completed the installation of all 21 wind turbines with a total capacity of 109.2 MW. It went fully operational in September 2021.

Yun-Neng Wind Farm Phase 1

Phase 1 of the Yun-Neng wind farm will be operational by the end of 2021 with 20 turbines offering a total capacity of 160MW.

Formosa 2

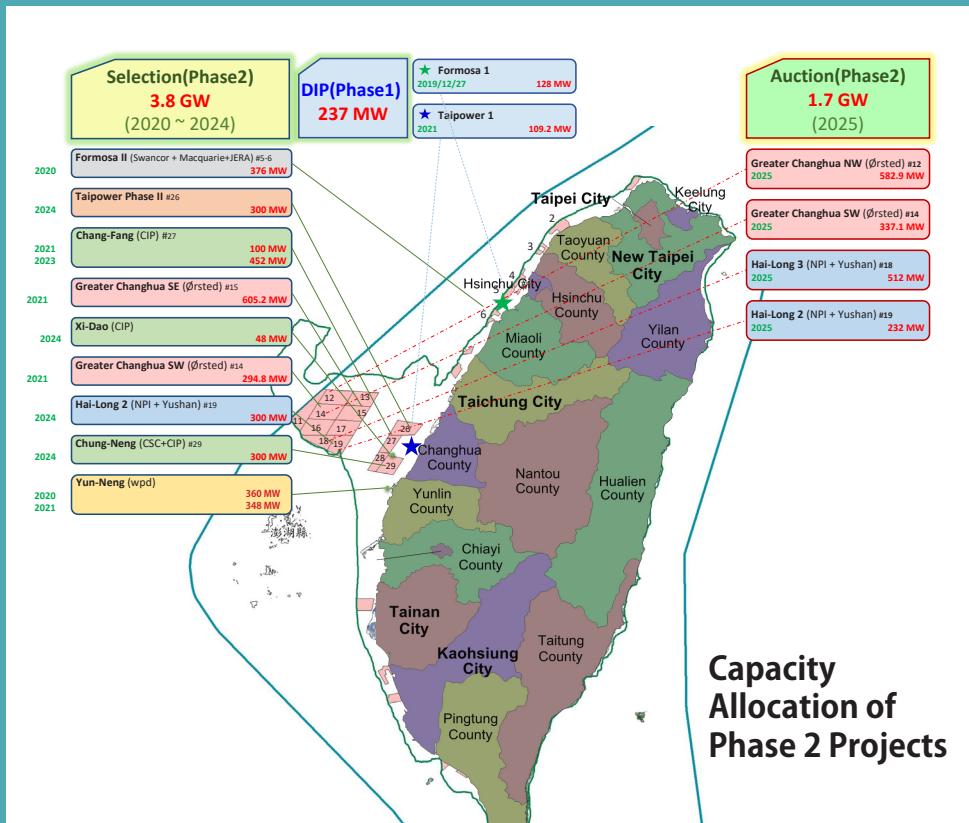
The Formosa 2 wind farm will consist of 47 turbines and have an operational capacity of 376 MW. Like Yun-Neng Phase 1, Formosa 2 will be operating at half capacity by the end of 2021 and will come online fully in 2022.

Greater Changhua SE & SW

Ørsted's Greater Changhua Project contains 111 turbines with a total capacity of 900 MW. Both are on schedule to be completed by the end of 2022.

Chang Fang Phase 1

The Chang Fang Phase 1 wind farm includes 16 turbines with a total capacity of 100 MW. The wind farm is scheduled to be fully operational by the end of 2022.



Wind Farm	Capacity (MW)	(Estimated) Year of Commission
Formosa 1	128	2019
Taipower Phase 1	109.2	2021
Taipower Phase 2	300	2025
Formosa 2	376	2022
Yun-Neng	640	2022
Greater Changhua SE	605.2	2022
Greater Changhua SW	294.8	2022
Chang-Fang Phase 1	100	2022
Chang-Fang Phase 2	452	2023
Xi-dao	48	2023
Chung-Neng	300	2024
Hai-Long 2	300	2025
Hai-Long 2 (Auction)	232	2025
Hai-Long 3 (Auction)	512	2025
Greater Changhua NW (Auction)	582.9	2025
Greater Changhua SW (Auction)	337.1	2025

Case Study: The Formosa 1 Offshore Wind Farm

The Formosa 1 Offshore Wind Farm is Taiwan's first utility-scale offshore wind farm. It is a joint venture between Ørsted (35%), JERA (32.5%), Macquarie's Green Investment Group (25%) and Swancor (7.5%)

It is located between 2-6 kilometres off the coast of Miaoli County in north-western Taiwan and cover an area of 10.27km². Formosa 1 has a total capacity of 128MW and was built in two phases:

Phase 1: The first phase of Formosa 1 was completed in 2017 and consisted of 2 x 4 MW Siemens turbines with an operating capacity of 8MW. Each turbine has a 130 m diameter rotor, 58.5 m long rotor blades and an 11,300 m² swept area.

Phase 2: The second phase was completed in 2019 and saw a further 20 x 6 MW Siemens turbines with a 154 m diameter rotor added with a further operating capacity of 120MW.

Since the approval of Formosa 1 was first given back in 2012, a series of environmental surveys have been undertaken to ensure that the environmental impact of the Wind Farm is minimised. These have included noise, underwater acoustic, marine ecological, marine mammal, bird, and marine topography studies.

These have been used to mitigate any environmental impact the construction of Formosa 1 may have had. Formosa 1 has used the latest state-of the-art noise reduction techniques and has conducted regular noise measurements to ensure that the noise reduction measures are working well.

Throughout the development of Formosa 1, there has also been close engagement with the local community in Miaoli Country. This has included regular engagement with local fisherman and coastal communities. The companies behind the construction have employed local staff wherever possible and also sought to understand local customs and traditions and apply this knowledge to the project.

The whole Formosa 1 Offshore Wind farm operation is monitored and remotely controlled from its onshore operation base. During Phase 1, this was the Miaoli Zhunan substation but since the completion of Phase 2, this has moved to Taichung harbour.

The wind power stations distribute the generated power to Taiwan Power Company based on feed-in tariff agreed in a power purchase agreement for 20 years.

The Formosa 1 Offshore Wind Farm formally began its commercial operation on 27 December 2019.

Now that it is fully operational, the Formosa 1 Offshore Wind farm is able to meet the needs of around 128,000 homes per year and will offset over 236 million tons of CO₂ from being introduced into the atmosphere.



UK-Taiwan Offshore Wind Collaboration

The UK has a world-leading offshore wind industry and is a model for Taiwan's ambitions. It currently has more offshore wind capacity installed than any other country (8.4GW as of February 2019) and it boasts the biggest offshore wind farms in the world and the biggest wind turbines.

In 2020, wind power contributed 24.8% of UK electricity supplied, with offshore wind accounting for 10% of that total. By the beginning of December 2020, wind power production across the UK consisted of a total of 10,930 wind turbines with a total installed capacity of over 24.1GW. 10.4 GW of that was offshore capacity.

The offshore wind infrastructure programme is currently one of the biggest infrastructure projects in the UK. Between 2017 and 2021, it invested more than £19 billion into the UK economy.

The impact of this on the cost of offshore wind energy in the UK has been profound. Prices have reduced by 66% since 2015 because of investment and developments in the sector.

The UK Government's future wind energy plans are as ambitious as Taiwan's. Through the BEIS Offshore Wind Sector Deal, the UK has committed to having 40 GW of installed offshore capacity by 2030. On top of this, in October 2020, the UK government announced a further target for 1GW of floating offshore wind power generation by 2030.

If that wasn't ambitious enough, last year Prime Minister Boris Johnson pledged that, by the end of the decade, offshore wind would generate enough energy to power every UK home.

UK-Taiwan Offshore Wind Corporate Collaboration

The development of offshore wind is at different points in the UK and Taiwan. But as a global leader in offshore development, many UK businesses have found opportunities in Taiwan's growing sector.

There are currently more than 30 British businesses involved in Taiwan's offshore wind expansion including:

- **Innogy Renewables** – A wind farm developer that already has a portfolio of offshore wind sites in the UK.
- **Cwind Taiwan** - A joint venture between CWind and International Ocean Vessel Technical Consultant (IOVTEC) to provide crew transfer vessels, offshore technicians, construction and O&M services, and training to the Taiwanese offshore wind farm industry.
- **Arup Group** – Global engineering and servicing company headquartered in London with an Engineering consultancy office based in Taipei.
- **Mott McDonald** – Global infrastructure company based in the UK and working on renewables projects in Taiwan.
- **The Renewables Consulting Group** - an integrated market intelligence, management consulting and technical advisory firm based in London but operating globally including in Taiwan.
- **JDR Cables Systems** – Hartlepool-based business that designs, engineers, manufactures and supports subsea power cables.
- **Mammoet** – Formerly known as ALE Heavy Lift, providing engineering, heavy lifting and transportation solutions for Taiwan's offshore wind developments. Mammoet has also established a joint venture in Taiwan with Giant Heavy Machinery Services Corp and the Taiwan International Ports Corporation.
- **Horizon Geosciences Ltd** – Bristol based business that provides comprehensive marine survey and geotechnical services.

- **James Fisher and Sons** – Based in Barrow-on-Furness and provides marine solutions and specialised engineering services and project management for renewable energy construction projects.
- **Global Wind Service** – Lowestoft-based business that supplies turbine technicians, expertise, and services to global wind farm projects including in Taiwan.
- **Seajacks UK** – Based in Great Yarmouth and operates self-propelled jack-up vessels which provide safe and efficient offshore solutions to Taiwanese offshore wind farm developments.
- **Specialist Marine Consultants** – Based in Hunmanby, Yorkshire, and provides consultancy, health & safety advisory, workforce solutions and software services to the marine and energy industries.

The mutual benefit of this close cooperation is clear. It gives UK businesses the opportunity to expand into international markets, grow their businesses, and ensure Britain remains at the forefront of the global green energy revolution.

For Taiwan, the involvement of these British businesses ensures they can reach their ambitious offshore wind goals while benefitted from the knowledge and expertise of global leaders in their fields, and also develop their own offshore wind market under the tutelage of the best in the business.

UK-Taiwan Offshore Wind Political Collaboration

The Taiwanese Government has gone out of its way to ensure that the best international businesses want to work on their offshore developments, establishing a regulatory and open market environment that is among the most attractive in the world.

Meanwhile the UK Government has also done much to ensure that British business are well-placed to take advantage of the opportunities Taiwanese offshore wind development presents to them.

Earlier this month, the 16th UK-Taiwan Renewable Energy Roundtable Meeting took place in Taipei. More than 200 industry practitioners took part in this meeting with 16 different businesses sharing best practice on a range of areas including Operations and Maintenance (O&M), smart grid and innovative floating offshore wind technology.

Speaking after the event, Tseng Wen-Sheng, Taiwan's Deputy Minister of the Ministry of Economic Affairs remarked:

"This Roundtable Meeting has acted as an important platform for regular dialogue and cooperation on renewable energy between Taiwan and the UK. To achieve our target of 20% renewable energy generation by 2025, Taiwan has been working on accelerating its offshore wind farm development."

"The Ministry of Economic Affairs will continue to promote the expansion of renewable energy related plans in order to supply domestic green power demand."

John Dennis, the Representative of the British Office, Taipei added:

"The British Office has a long history of working with Taiwan in offshore wind. As Taiwan embarks on its energy transition, we are excited to see how this relationship develops. The industry is evolving, with new technology on the horizon."

"In the years ahead, we will strengthen our relationship with Taiwan by sharing these technologies and methods, helping ensure Taiwan remains at the apex of Asia's offshore wind development."

This meeting built on the 3rd UK-Taiwan Energy Dialogue which took place in July and saw the two countries cooperate on the UK-Taiwan carbon reduction pathway in energy sector, as well as to co-organise a series of energy innovation workshops focusing on floating offshore wind, hydrogen and Carbon capture, utilisation and storage (CCUS) technologies.

The APPG warmly welcomes these regular engagements between the UK and Taiwan on renewable energy and hopes they are the start of a close working relationship between the two countries on these issues and more in the years ahead.

The role of UK Export Finance

UK Export Finance is the UK's export credit agency. It works alongside the Department for International Trade and over 100 private credit insurers and lenders to ensure that British Businesses don't miss out on international contracts for a lack of finance or insurance.

Since 2019, UK Export Finance has provided £500 million of financing for three offshore wind farms in Taiwan.

Most recently, in February 2021, two UK companies, Seajacks and Trelleborg received a £200 million buyer credit guarantee to help finance the Greater Changhua 1 Offshore Wind Farm in Taiwan.

When it is complete, the Greater Changhua 1 Offshore Wind Farm has a capacity of 605 MW, powering more than 650,000 households. Both these British companies will play a crucial role. Seajacks will ship the material needed to install the turbines and Trelleborg's applied technologies operation will provide protection systems for the cables which connect the turbines to the mainland.

As the UK Secretary of State for International Trade, Rt. Hon Liz Truss MP, said when this financing was announced,

"By supporting projects like these we can help the UK lead the world in green growth and drive an exports-led, jobs-led recovery from COVID here at home."

The APPG strongly endorses these words. We believe that Taiwan offshore wind developments are a huge credit to the Taiwanese government and a huge opportunity to many British businesses operating in this space.

While the level of support offered by UK Export Finance to British companies in this sector is welcome, we would like to see the Department for International Trade do more to build closer relations with the Taiwanese government over offshore wind cooperation.

There is much more that can be done to increase the opportunities for UK businesses while helping Taiwan to achieve its offshore wind goals. It is a win-win opportunity for both sides and it is vital that the UK government prioritises the interests of British businesses and the global environment over other less relevant political considerations.



Case Study: CWind Taiwan

CWind Taiwan is a joint venture between British companies CWind and the Taiwan-based International Ocean Group.

It offers a variety of services including subsea surveys, trenching, cable installation, cable pulls, temporary power solutions, inspections, maintenance, repairs, crew transfers and more.

CWind Taiwan is currently involved in no fewer than ten separate offshore wind farm developments in Taiwan since 2017. It has played a major role in Taiwan's first offshore wind farm, Formosa 1.

A commitment to Taiwan

Because the Taiwanese offshore wind industry is still young and growing, CWind has utilised its European experience alongside a skilled local team onto Taiwanese projects to develop the local supply chain.

CWind Taiwan now has a dedicated in-house Taiwanese crew, managed by an international accredited Integrated Management System (IMS) system and with practical experience working on offshore wind farms in both Taiwan and Europe. It also offers in-country senior European consultants to provide instant operational support to all Taiwanese offshore wind projects CWind are working on.

CWind Taiwan currently has seven vessels deployed around Taiwan to promptly react to planned and unplanned requests, and to enable them to easily scale up client support from crew transfer to various construction support services as required.

CWind Taiwan and the Formosa 1 Offshore Wind Farm

CWind Taiwan provided the cable route clearance and pre-lay grapnel run (PLGR) work on the Formosa 1, Phase 2 project. The contract involved clearing approximately 26 km of planned cable route, minimising the risk of debris along the route.

CWind Taiwan completed a UXO Survey prior to the work. It then provided all survey equipment, vessels and surveyors, project managing all stakeholders and risks involved for the ease and peace of mind of its client.

CWind Taiwan then provided its CTV, CWind Phantom, to support the construction phase of Formosa 1, carrying out crew transfer support for more than 7,300 personnel transfers between sites.

Tom Manning, the General Manager of CWind Taiwan said :

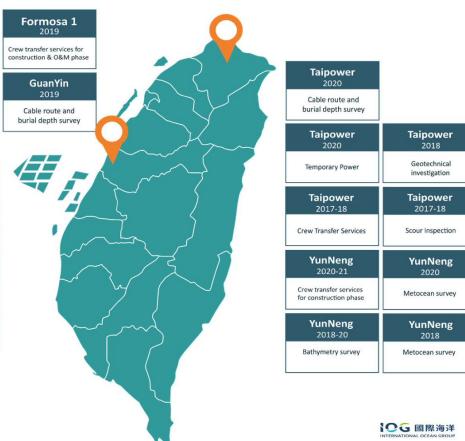
"CWind Taiwan has already achieved a great deal: delivering Taiwan's first GWO training school, operating the largest fleet of CTVs in the country, and delivering the country's first O&M solutions on Taiwan's inaugural wind farm, Formosa 1. We look forward to continuing to helping Taiwan establish itself as a key offshore wind market in the years ahead with CWind Taiwan a key supplier in a thriving domestic supply chain."

"Together with our international and Taiwanese partners we anticipate bringing further services in support of the ambitious offshore wind vision that the Taiwanese Government has set into the next decade with their round 3 announcements, including floating wind projects, and greater localisation of services."

Experience on 10 Key Taiwanese Offshore Windfarms since 2017

Including CTV support, temporary power, cable route clearance and IMR.

Formosa 1 2020	Topside Inspection, Maintenance and Repair
Formosa 1 & 2 2018-20	UXO survey
Formosa 1 2019	Crew transfer services for construction & O&M phase
Formosa 1 2019	Route clearance & Pre-lay Grapnel run
Greater Changhua 2019	Geotechnical investigation
CSC - ChungNeng 2020	Metcean survey
ChangFang Xidao 2020	Geotechnical investigation
Greater Changhua 2019	Geotechnical investigation
CSC - ChungNeng 2020	Metcean survey
Hailong 2020	Geotechnical investigation





Taiwan and COP26

Taiwan's offshore wind market is the most advanced in the Indo-Pacific region and a model to many neighbouring countries. It is also a significant market for many UK businesses.

With the COP26 conference fast approaching, the cooperation between the UK and Taiwan in the offshore wind sector is a fantastic example of how international cooperation can help us all to address the challenges of climate change.

It is therefore disappointing for the APPG to see that, far from holding Taiwan's commitment to offshore wind development up to the rest of the world as an example of best practice, the UK Government has, so far, barely engaged with the Taiwanese Government in the run-up to COP26.

The APPG would gently remind the COP26 President, Rt. Hon Alok Sharma MP, the Department for International Trade, the Foreign, Commonwealth and Development Office and every government official working to make COP26 a success that climate change is a global issue and one over which any other political issues must be put to one side for the greater good.

Taiwan is keen to play a full part in the COP26 conference in Glasgow later this year and the APPG would urge the UK Government to ignore any threats that might come their way from Beijing and ensure that the Taiwanese Government, Taiwanese industry representatives, and representatives of those British companies that are making Taiwan's offshore wind developments such a huge success play a full role in this conference.

Taiwan's exclusion from the World Health Organisation proved pivotal in the global failure to contain the COVID-19 pandemic.

The battle against climate change is a similarly global challenge and it is vital that Taiwan is given the opportunity to play a full role.

The COP26 conference will set the policy agenda in this area for the next decade. It is in the interests of the UK, Taiwan, and the whole world, for Taiwan to have a seat at the table

Concluding Remarks – Representative Kelly Hsieh

This is a timely report for the British-Taiwanese APPG to produce because the offshore wind sector in Taiwan, which has been developing steadily over the past few years, is about to go into overdrive.

The ambitious target that our government set itself of delivering 5.7GW of wind power from offshore wind farms by 2025 is set to be achieved with 7 projects already in development which are set to achieve this goal.

And this is just the start. The Taiwanese Government is committed to adding a further 1.5 GW of offshore wind capacity each year from 2026 until 2035. Taiwan's geography and climate makes offshore wind an ideal energy resource for our country and our government is committed to making this sector a success and aware of the crucial role it can play in helping Taiwan move towards net zero.

Establishing a flourishing offshore wind sector from a standing start was always going to be a challenge. The Taiwanese people always approach such challenges with an optimistic and positive mindset, but we are also realists, and we knew that we would need support from our international allies to make this sector a success.

Britain has long been a world-leader in the offshore wind space so it was a natural place to turn for expertise and advice. We have been overwhelmed by the positive and constructive responses we have received from both the British government and a whole host of British companies keen to invest in our offshore wind sector.

As this report highlights, there are already significant number of British companies working on offshore projects in Taiwan. Many have set up subsidiary companies based in Taiwan and are investing not just in the wind farms themselves, but in Taiwan and its people.

We thank them for the confidence they have shown in us and the crucial role they are playing in helping us to not only deliver vital green energy projects, but also develop our own domestic market.

We hope as the Taiwanese offshore wind sector continues to grow, more British companies will become involved and help to strengthen this bond between our two countries.

We also hope to work closely with the British Government as it looks lead a global push for clean energy solutions and to deliver net zero by 2050. Taiwan stands ready to assist this push in any way it can and, as this report recommends, we hope to play a full role in the vital COP26 conference later this year.

I would also like to thank Lord Rogan and Rt Hon Bob Stewart MP for their unwavering support of Taiwan as co-Chairs of the British-Taiwanese APPG and for their work in producing this report.

I hope other MPs and interested parties who read it feel as enthused for Taiwan's offshore wind sector as we are, and my colleagues and I at the Taipei Representative Office in London stand ready to help any MP, Peer, or businessperson who would like to learn more and get involved.



**Representative Kelly Wu-Chiao Hsieh
Taipei Representative in the UK**

