NEW ZEALAND
TRADE & ENTERPRISE
Te Taurapa Tūhono

KOREA OFFSHORE WIND FARM PROJECTS REPORT

Prepared by NZTE Seoul, April 2025

Contents

Executive Summary

Objectives

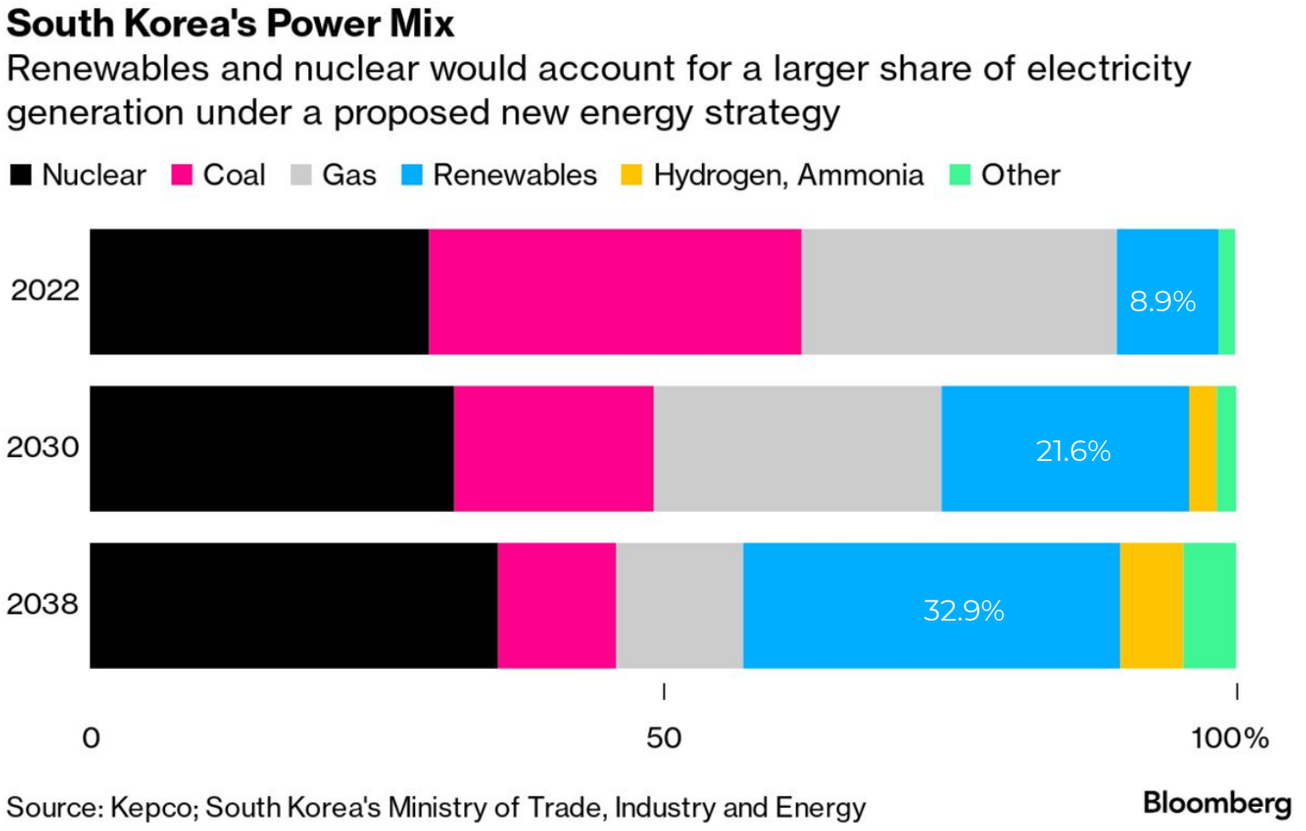
- South Korea’s commitment to more renewable energy will lead to the development of numerous offshore wind farms.
- These projects will offer various opportunities to New Zealand suppliers of equipment and services.
- This report aims to provide an overview of the Korean offshore wind farm projects and a framework for New Zealand companies to identify projects requiring immediate attention.

Key Findings

- South Korea plans to increase offshore wind capacity from 0.13 GW to 14.3 GW by 2030, positioning it 6th globally.
- A new 20-year fixed-price PPA system offers long-term revenue certainty and project clarity for developers and stakeholders.
- Priority prospects include currently operating wind farms, 2022–24 PPA participants, newly qualified bidders and international developers.

Korea Offshore Wind Farm Overview and Outlook

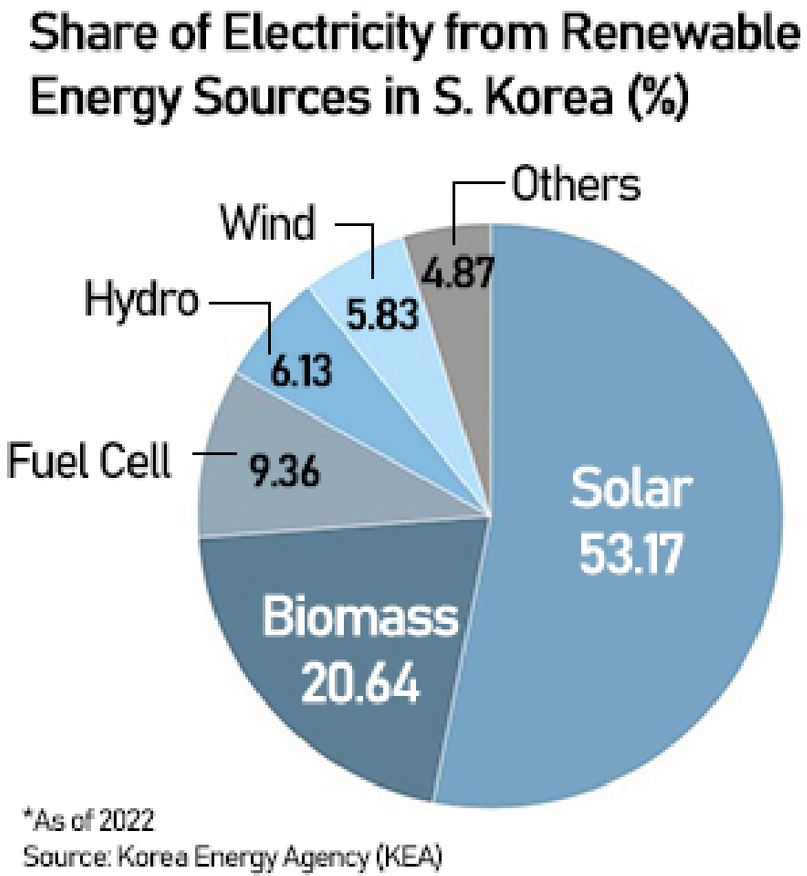
Renewables: Bigger Role in Korea Power Mix



South Korea, the world's eighth-largest emitter aim to lift the share of renewables in its power mix to almost a third by 2038.

According to the 11th Basic Plan on Electricity Supply and Demand of Korea, **renewable energy's share** of total energy generation will increase from 9% in 2022 to **21.6%** by **2030** and 32.9% by 2038.

Focus on Offshore Wind Power



"South Korea's government announced it will revamp its renewable energy system that disproportionately favours solar power generation, with the plan likely to focus on **offshore wind power**."

https://pulse.mk.co.kr/news/english/11017607

Why offshore, not onshore

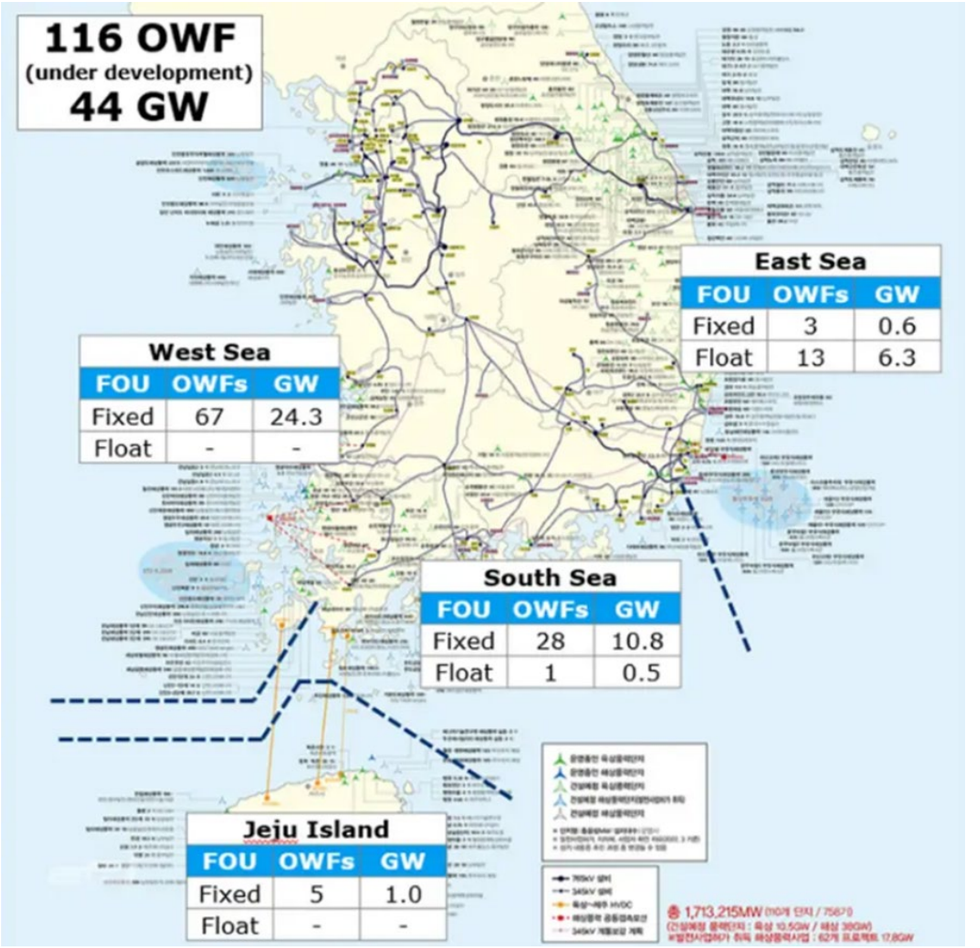
- Due to a lack of suitable land (70% of the country is mountainous)
- Resistance from local communities
- So only few onshore projects have been implemented

Offshore Wind Farms in Operation and in Pipeline

Only 4~6 Offshore wind farms in Operation Now

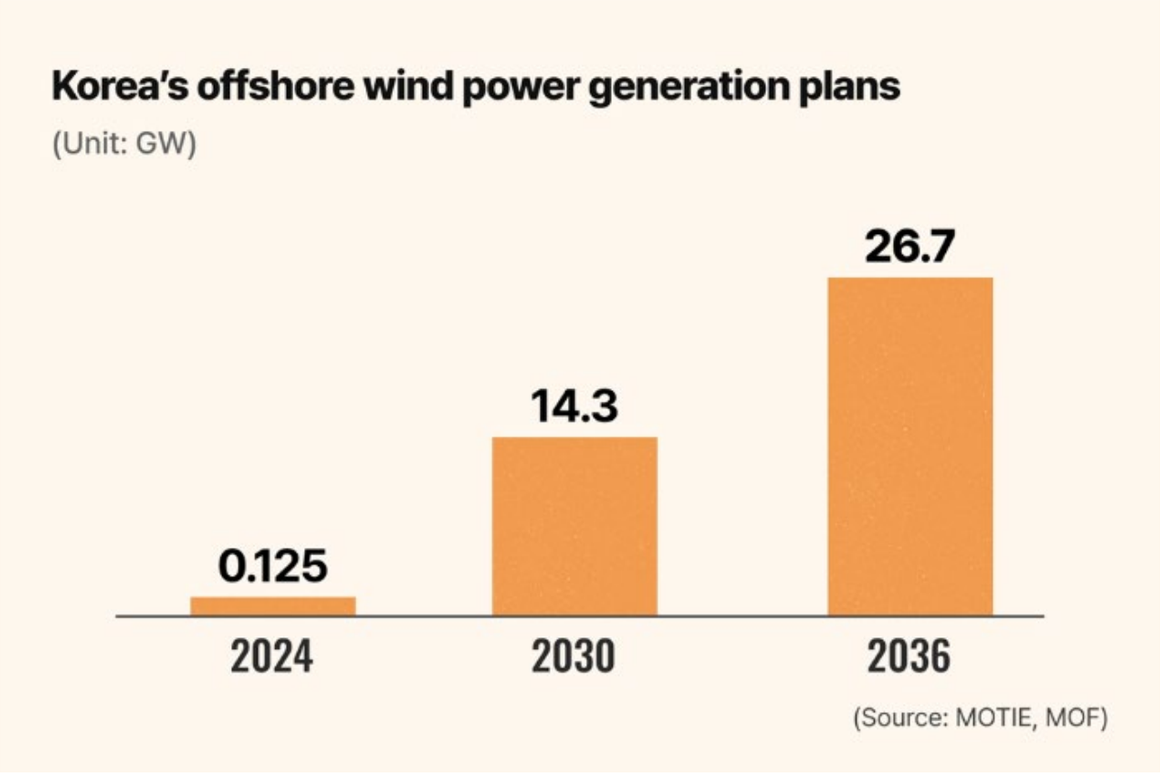
Source: EUCD Korea OSW Fact Sheet , NZTE research

About 100 OSF Projects under Development



https://www.ramboll.com/en-apac/insights/decarbonise-for-net-zero/recent-developments-in-south-korea-s-offshore-wind-deployment

More Offshore Wind Power



https://www.kedglobal.com/shipping-shipbuilding/newsView/ked202412300002

"Korea plans to expand its offshore wind power generation capacity to 14.3 GW by 2030 from the current 0.13 GW, requiring the addition of **2 GW capacity annually**."

Hanwha Ocean, another Korean shipbuilder win $951 million WTIV deals - KED Global

"If all three phases are completed as planned, South Korea would be ranked **sixth globally** in terms of offshore wind capacity by 2030, after China, United Kingdom, United States, Germany and the Netherlands."

offshore-wind-in-south-korea--the-path-ahead.pdf

South Korea's Offshore Wind Power Supply Roadmap

Offshore Wind Power Bid Announcement Volume Forecast (Draft)				
category	2024 2nd half (1 time)	2025 (1~2 times)	2026 1st half (1 time)	Total (3~4 times)
Stationary (General)	1~1.5GW	2~2.5GW	1~1.5GW	4.5~5GW
(Separate) Floating*	0.5~1GW	0.5~1GW	1~1.5GW	2.5~3GW
(Separate) Public-led	-		Promotion of introduction in the 1st half of 2025	
Total	1.5~2GW	3~3.5GW	2~3GW	7~8GW

https://www.ramboll.com/en-apac/insights/decarbonise-for-net-zero/recent-developments-in-south-korea-s-offshore-wind-deployment

On 8 August 2024, the MOTIE unveiled a comprehensive roadmap to accelerate the development and supply of offshore wind power.

Integral to the roadmap is a fixed-price **Power Purchase Agreement (PPA),** where an offshore wind power project developer signs a contract with Korea Electric Power Corporation (KEPCO) and large-scale power generation companies to supply electricity and Renewable Energy Certificates (REC) at a fixed price for 20 years.

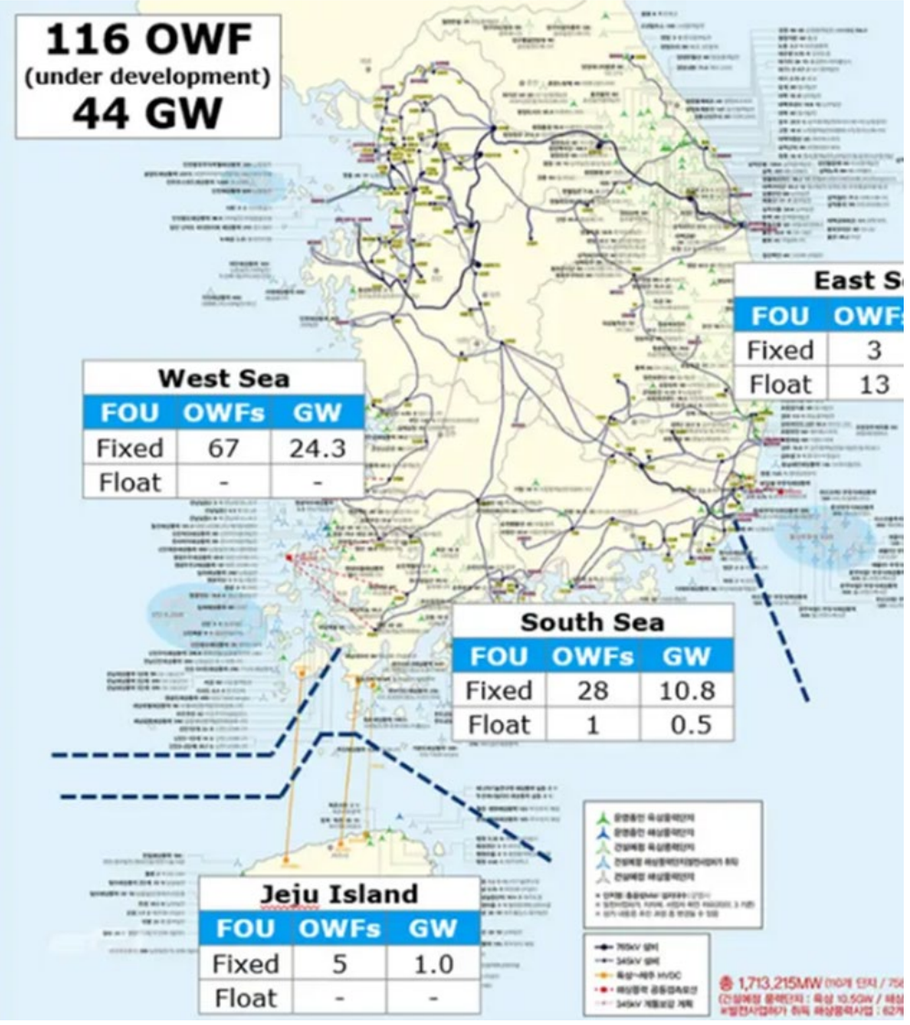
Compared with the previous two tenders, the roadmap offers a future volume forecast, detailed volume by category and new evaluation methods.

After signing the contract, the project developer who wins the competitive bidding must complete the pre-use inspection within 54~78 months, depending on capacity.

A total of **7–8 GW** of offshore wind power capacity is expected to be auctioned in three to four tender rounds **between H2-2024 and H1-2026**.

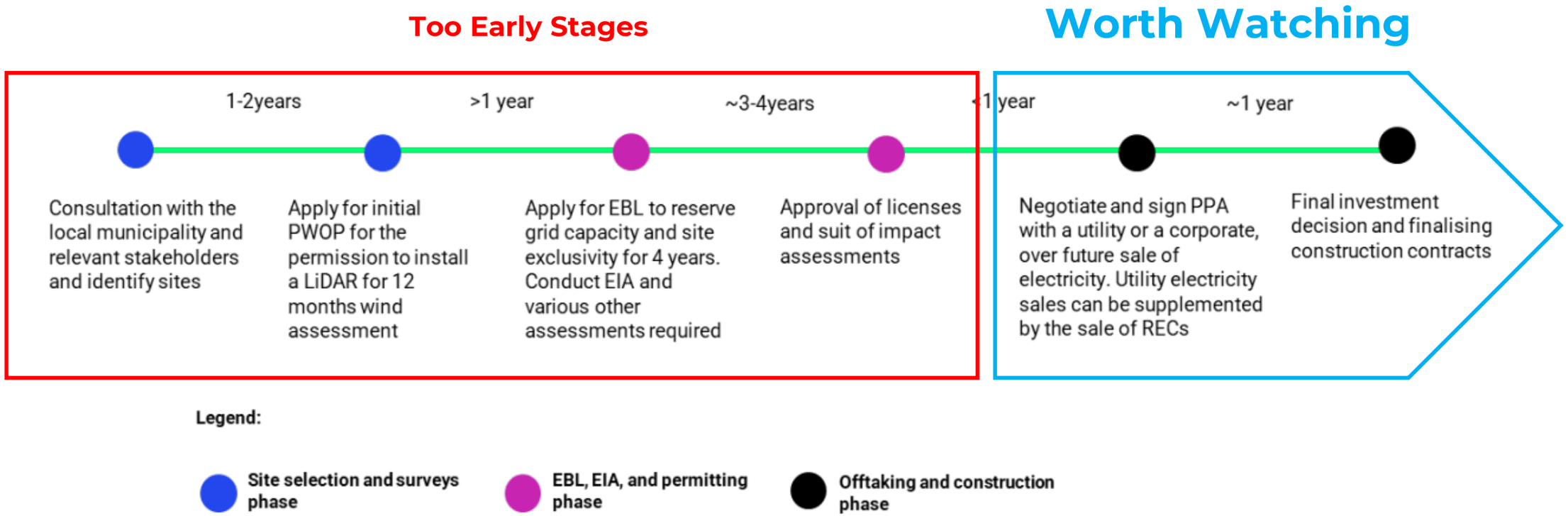
Target Projects

Identify Right Projects



- Over 100 projects are too many to follow up
- Different stages
- How to tell the good, the bad and the ugly?
- Hard to keep up with the changes

Screening by Project Development Process



PWOP: Public Waters Occupancy and Use Permit, **EBL**: Electricity Business License, **EIA**: Environmental Impact Assessment

Unlocking the Potential: Challenges & Opportunities for the South Korean Offshore Wind Supply Chain

Priority Prospects

1. Offshore wind farms already in operation

2. The projects which signed the fixed price Power Purchase Agreement (PPA) in 2022 and 2023

3. The projects which won the PPA tender in 2024 after the introduction of the Offshore Wind Power Supply Roadmap

4. Other projects participated in 2024 tender and newly qualified to bid

Offshore Wind Farms Already in Operation

	Project Name	MW	Start	Ownership
1	Jeju Tamra Offshore	30	2017	Doosan Enerbility Co., Ltd (EPC & O&M)., NongHyup Bank, KOEN
2	Jeju Hanlim	100	2024	KEPCO, Hyundai Engineering & Construction, KB Kookmin Bank, Baram Corp., KOMIPO
3	Yeonggwang	34.5	2019	EWP, Daehan Green Power
4	Younggwang Wind	4.3	2025	Jeonnam Development Corporation (JNDC)
5	Southwest Offshore Wind Power Demonstration	60	2020	Korea Hydro and Nuclear Power Co., Ltd. (KHNP), Korea East-West Power Co., Ltd (EWP), Korea South East Power Co., Ltd (KOEN), Korea Southern Power Co. Ltd. (KOSPO), Korea Western Power Co Ltd (KOWEPO), Korea Midland Power (KOMIPO), Korea Offshore Wind (KOWP) and Korea Electric Power Corporation (KEPCO)

Source: EUCD Korea OSW Fact Sheet , NZTE research

PPA Winners in 2022 and 2023

2022 Bidding

Year	Project Name	MW	Ownership
2022	Jeonnam 1	99	Copenhagen Infrastructure Partners and SK E&S.

2023 Bidding

Year	Project Name	MW	Ownership
2023	Yeonggwang Nakwol	364.8	Myoungwoon Industrial Development and B.Grimm Power Public Co (Thailand)
	Wando Geumil 1 and 2	600	KOEN
	Shinan Ui	396	KOEN, Hanwha and SK D&D
	Gochang	76.2	Dongchon Wind Power, KOMIPO and Hyundai Engineering

PPA Winners in 2024

Year	Project Name	MW	Ownership
2024	Yeonggwang Anma 1	224	JNDC, Korea Wind Corporation Co., Ltd., KHNP, Hyundai Engineering and Construction, Equis Development Pte. Ltd (Singapore HQ with Kiwi MD for Korea)
	Yeonggwang Anma 2	308	JNDC, Korea Wind Corporation Co., Ltd., KHNP, Hyundai Engineering and Construction, Equis Development Pte. Ltd (Singapore HQ with Kiwi MD for Korea)
	Yeonggwang Yawol	104	Daehan Green Power Corporation
	Taean	500	Vena Energy (Singapore)
	Bandibuli (floating)	750	Equinor (Norway)

PPA Winners in 2024 on Map

The South Korean Ministry of Trade, Industry and Energy has awarded nearly... | Clarksons Research

Other Projects to Note I

2024 Unsuccessful Bidders

Project Name	MW	Ownership	Remark
Hanbit	340	B.Grimm Power Public Co (Thailand)* and local partner	Unsuccessful bidder in 2024
Handong Pyungdai	105	Jeju Energy Corporation	Unsuccessful bidder in 2024
Abhae	82	Woori Green Energy Co LTD	Unsuccessful bidder in 2024

Other Projects to Note II

2024 Projects Newly Qualified for Bidding

Project Name	MW	Ownership	Remark
Haewoori (floating)	1,500	Copenhagen Infrastructure Partners	Off the coast of Ulsan
Gray Whale (floating)	1,500	Corio Generation, Total Energies and SK Ecoplant	Off the coast of Ulsan
Munmu Baram (floating)	1,125	Hexicon (Shell divested in 2024)	Off the coast of Ulsan
Korea Floating (KF) Wind	1,125	Ocean Winds, Mainstream Renewable Power	Off the coast of Ulsan

Conclusion

- Strong Growth Outlook: South Korea plans to increase offshore wind capacity from 0.13 GW to 14.3 GW by 2030—positioning it 6th globally.
- Policy Support & Stability: A new 20-year fixed-price PPA system offers long-term revenue certainty and project clarity for developers and stakeholders. 7–8 GW to be tendered by mid-2026
- Key Opportunities for New Zealand: Priority prospects include currently operating wind farms, 2022–24 PPA winners and participants, and newly qualified bidders.
- Foreign developers: There are a few international developers participating in the Korean projects. If New Zealand companies have contacts or existing engagement with those players, they might leverage off those relationship.
- If you have any questions or need support, feel free to contact NZTE. We're always happy to assist!

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