
hexicon
FLOATING WIND SOLUTIONS 2023
HOUSTON, TX

HEXICON IN BRIEF

EARLY-STAGE DEVELOPER AND TECHNOLOGY PROVIDER FOR DEEP WATERS

Vast floating experience

One of the few companies with over a decade of floating wind experience

Presence in key markets

Active in several key geographies

Partnership-based project development

Partnering with leading industry players

Asset-light business model

Low capital intensity and diversified business model

Patented Technology

Unique twin turbine technology

Rapid market growth

The floating wind industry is expected to more than double annually over the next 20 years

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OUR DUAL BUSINESS MODEL

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PROJECT DEVELOPER

Early stage for high value creation

Local partners in prioritized markets

Development revenue, equity options

TECHNOLOGY PROVIDER

Patented TwinWind™ Design

Next generation offshore wind

License revenue

VISION 2025

Projects
Ongoing revenue generating operations in Europe, North America and Asia.

Technology
The TwinWind™ is verified and tested confirming its benefits.

Financial
EBITDA positive.

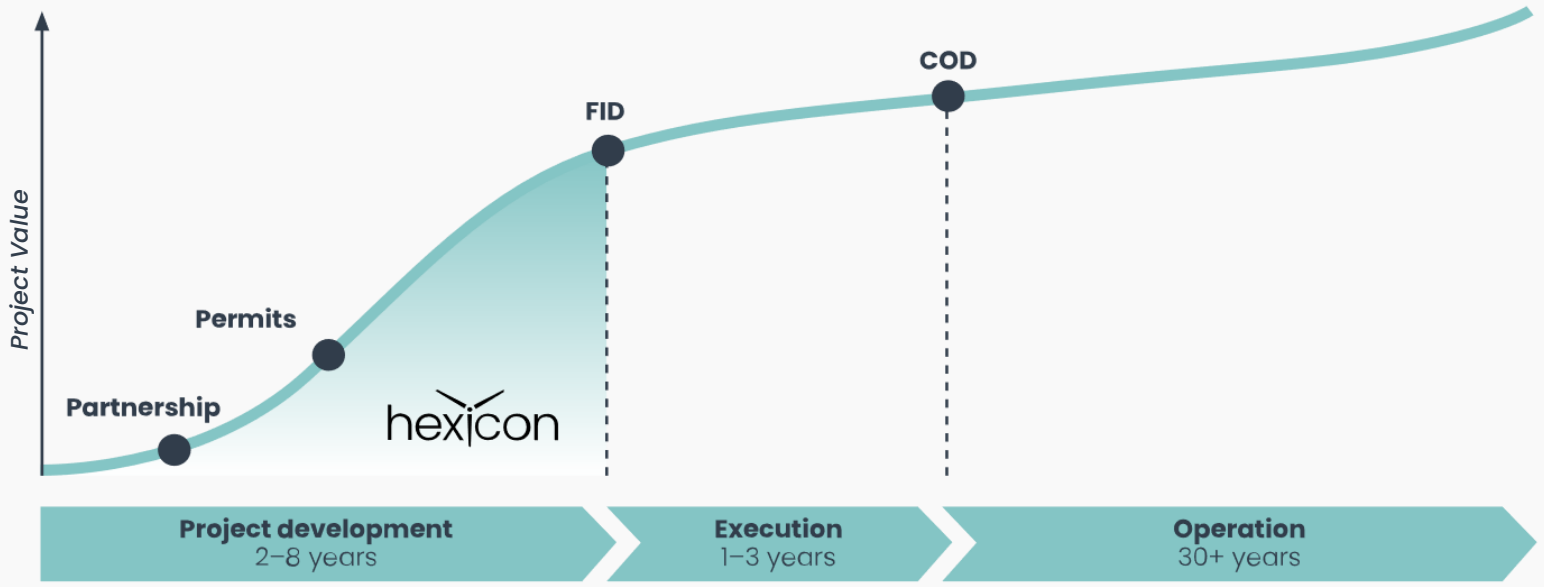
OUR DUAL BUSINESS MODEL

PROJECT DEVELOPER

Early-stage development
Hexicon are experts at finding the right opportunities and partners to develop projects form scratch

Mid-stage development
When the project and business case is mature enough Hexicon reaches out to it's global network and find the best co-investor with which the project can be brought forward with towards the later parts of the development process and finally construction

Late-stage development
The late stage focuses on the expensive geotechnical and geophysical surveys needed together with detailed engineering, procurement and execution planning to prepare for construction. Hexicon will reach out to it's global network to find the right consortium for the significant capex investment



FID – Final investment decision
COD – Commercial operation date

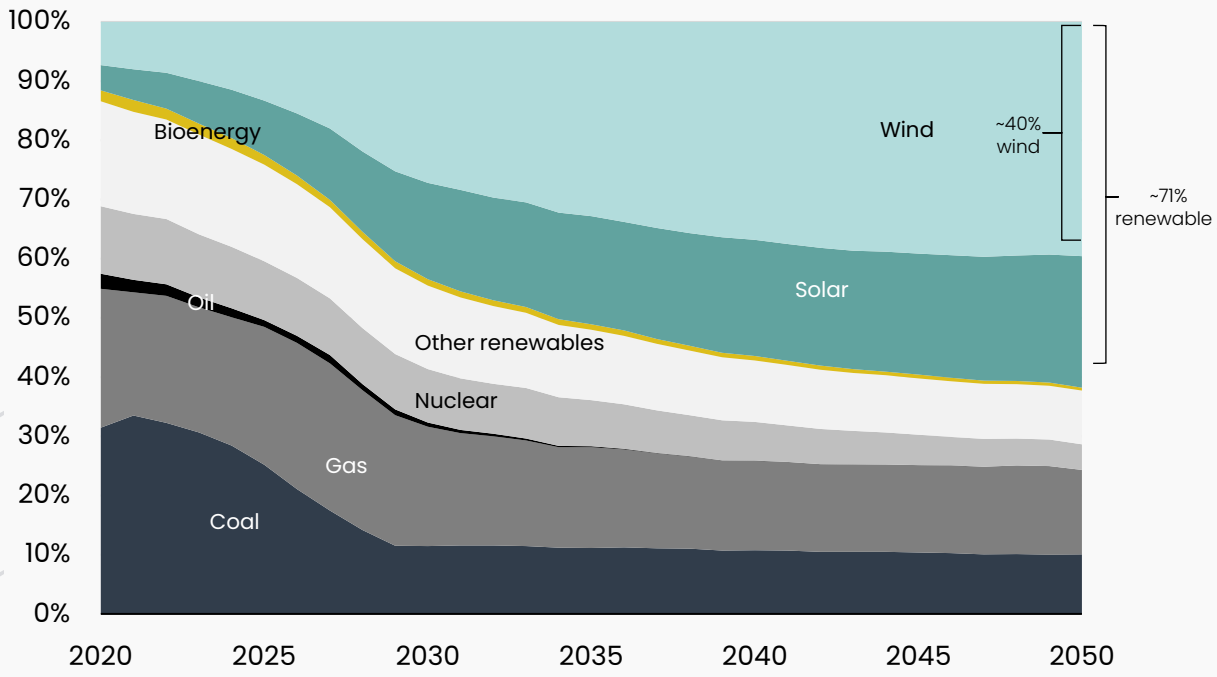
Construction
Hexicon can deploy a foundation solution to maximise project financials and minimize LCOE

I. PROJECT DEVELOPMENT
EARLY-STAGE ORIGINATION AND DE-RISKING

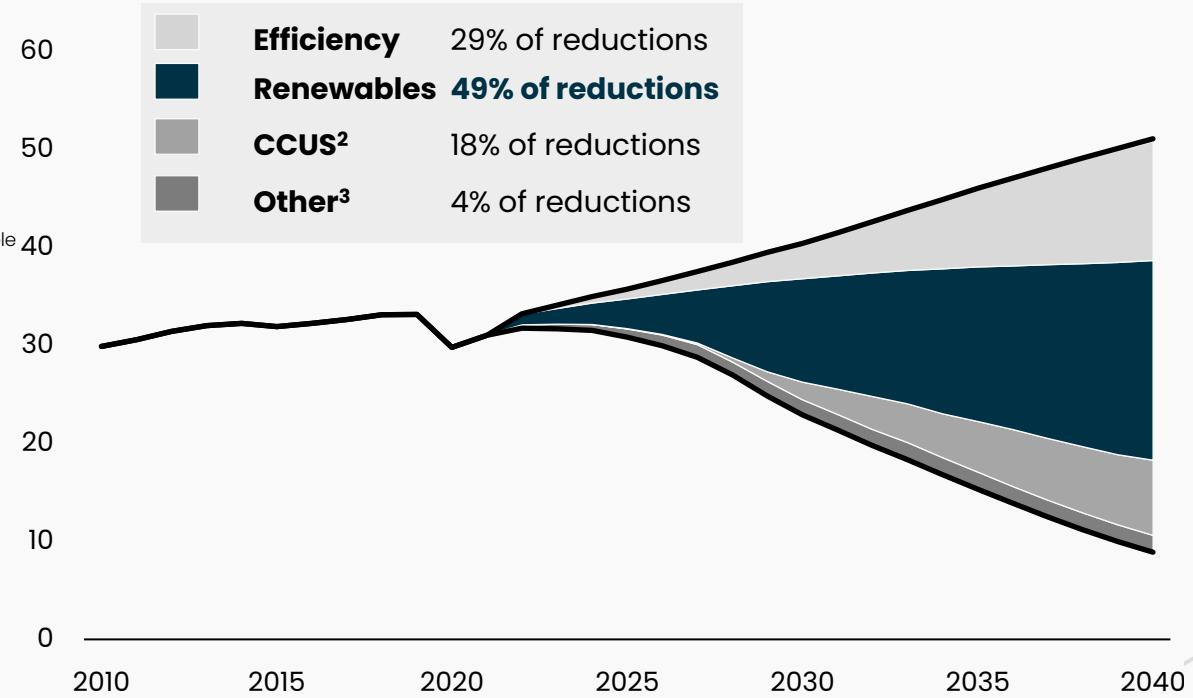
TRANSITION FROM FOSSILS

The energy transition will bring growth in variable renewables

RENEWABLES EXPECTED TO CONSTITUTE ~ 70% BY 2050[2]



CO2 EMISSION REDUCTION BY MEASURE 1)

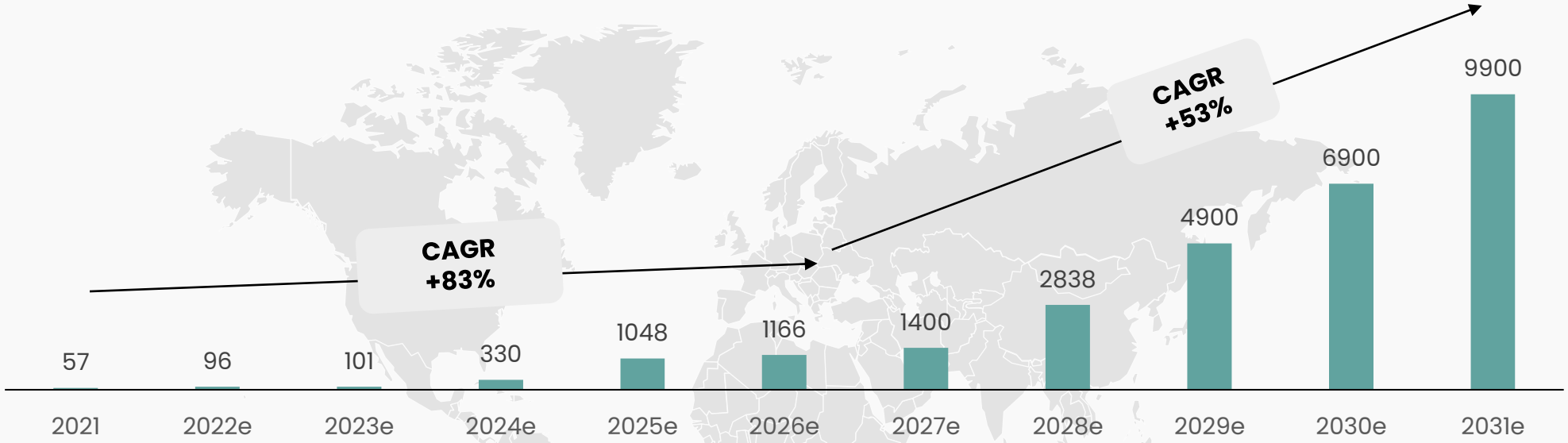


Source: Bloomberg New Energy Finance 2021
1) Sustainable development scenario (bottom line), relative to stated policies scenario (top line)
2) Carbon capture, utilization and storage
3) Includes fuel switching, nuclear and other

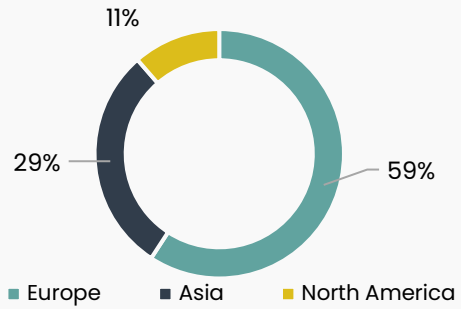
To achieve emission reduction objectives, deployment of wind and solar PV will have to accelerate substantially and will become dominant sources in various parts of any interconnected system.

SIGNIFICANT MARKET GROWTH AHEAD

NEW FLOATING WIND INSTALLATIONS, GLOBAL (MW)



CONTRIBUTION BY REGION, NEW INSTALLATIONS 2022-2031



OFFSHORE WIND DEEMED TO GROW

- 80% of the world's offshore wind resource potential lies in waters deeper than 60m
- Only 121.4 MW of net floating wind capacity is in operation worldwide, accounting for 0.2% of the total installed offshore wind capacity.

Source: GWEC | GLOBAL OFFSHORE WIND REPORT 2022

CONCEPTUAL PROJECT CASHFLOW – HEXICON VALUE CREATION

DEVEX 2-8 YEARS	CAPEX 1+ years	OPERATIONS 30+ years

Early-stage development

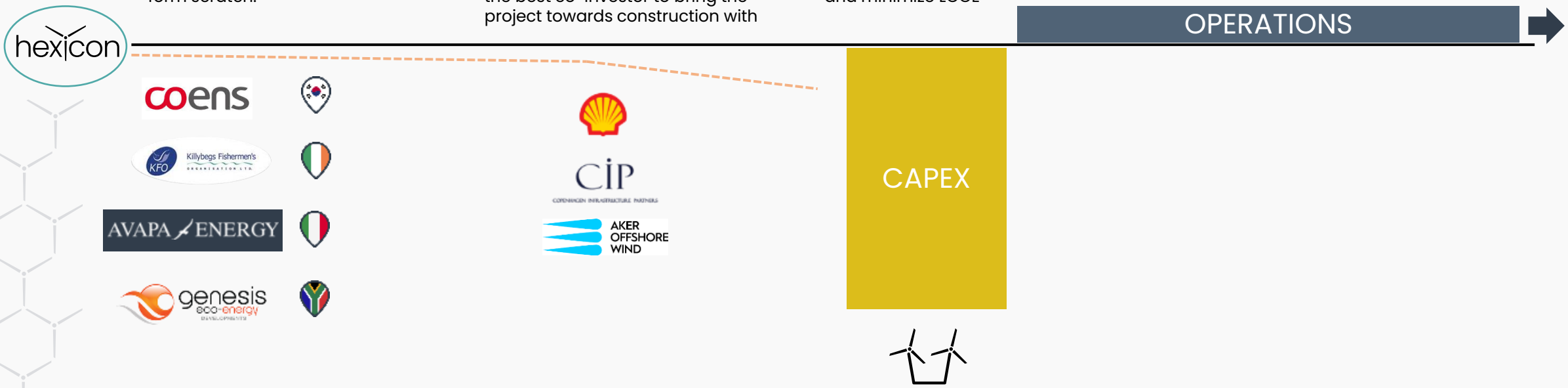
Hexicon are experts at finding the right opportunities and partners to develop projects form scratch.

Late-stage development

When the project and business case is mature enough Hexicon reaches out to it's global network and find the best co-investor to bring the project towards construction with

Construction

Hexicon can deploy a foundation solution to maximise project financials and minimize LCOE



PROJECT PORTFOLIO – +12 GW OF ACTIVE DEVELOPMENT

	PROJECTS						PROSPECTS			
	South Korea	South Korea	Scotland	Sweden	England ★	Italy	South Africa	Spain / Portugal	Ireland	Italy
Name	MunmuBaram	Pohang	Pentland Floating Wind Farm	Freja Offshore	TwinHub	AvenHexicon	GenesisHexicon	WunderHexicon	TBA	AvenHexicon
Location	Ulsan	East coast	Dounreay	Multiple	Cornwall	Multiple	Richards Bay	Canary Islands, NW Portugal	West Ireland	Multiple
Estimated gross capacity	~1,300 MW	900 MW	100 MW	+3,000 MW	32 MW	7,100 MW	800 MW	TBA	~2,000 MW	2,550 MW
Hexicon's stake	20%	30%	10%	50%	100%	50%	50%	75%	100%	50%
Site(s)	Secured	Secured	Secured	Identified	Secured	Secured	Identified	Selection ongoing	Identified	Identified
Target FID / COD	2025/2027	TBA	2024/2026	2027-/2029-	2023/2025	TBA	TBA	TBA	TBA	TBA
Partner(s)	Shell Overseas Investments B.V	Hexicon Korea	CIP	Mainstream Renewable Power	Bechtel	AvapaEnergy	Genesis Eco-Energy	Wunder Sight Group	Killybergs Fishermen's Org.	AvapaEnergy
					Gross projects: +12,400 MW Net projects: +5,500 MW				**Gross prospects: +5,300 MW Net prospects: +3,500 MW**	

FID – Final investment decision
COD – Commercial operation date

1 MW ≈ 1,000 households, 'rule of thumb' industry standard

★ *TwinWind™ technology demonstration project backed by UK AR4 CfD Contract. Designed expressly to commercialize Hexicon's technology. All other projects are technology-neutral (i.e. floater selection will reflect the best available solution for the project conditions and project timelines).*

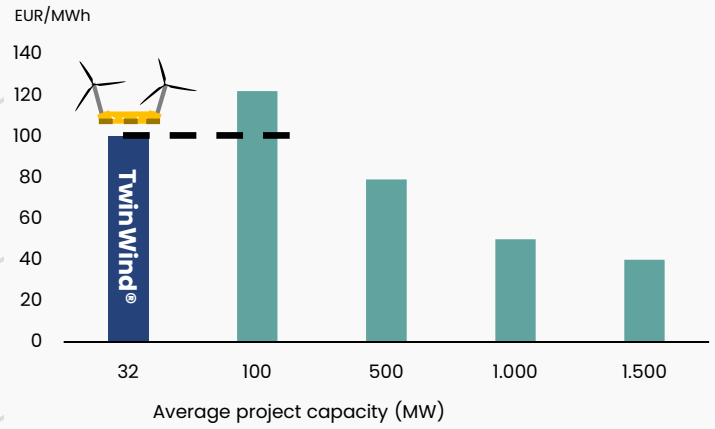
II. FLOATING TECHNOLOGY

SCALE AND INDUSTRIALISATION OF THE VALUE CHAIN IS KEY TO GETTING COMPETITIVE LCOE

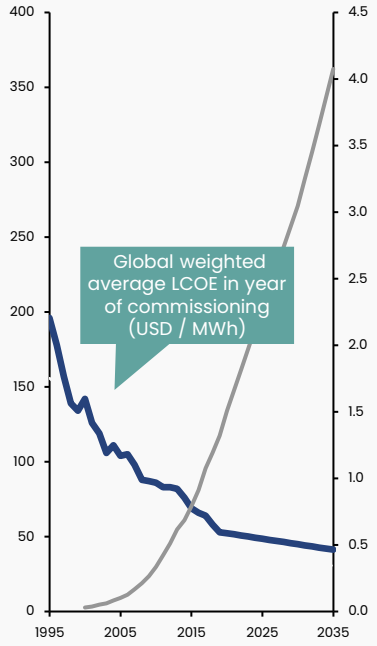
Key measures to lower LCOE

- Accelerate the scale of deployment
- Develop strategic supply chain
- Drive innovation through test and demonstration

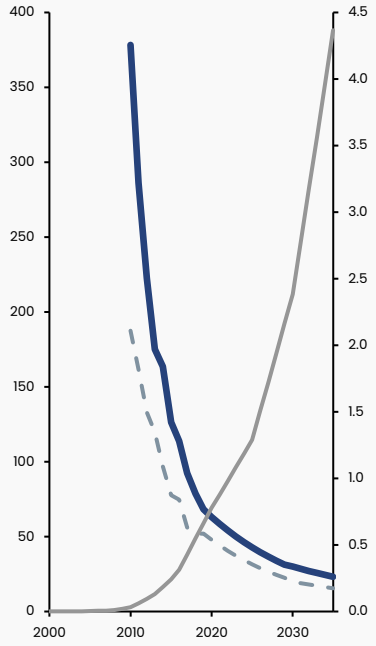
Projected LCOE based on average project capacity[1]



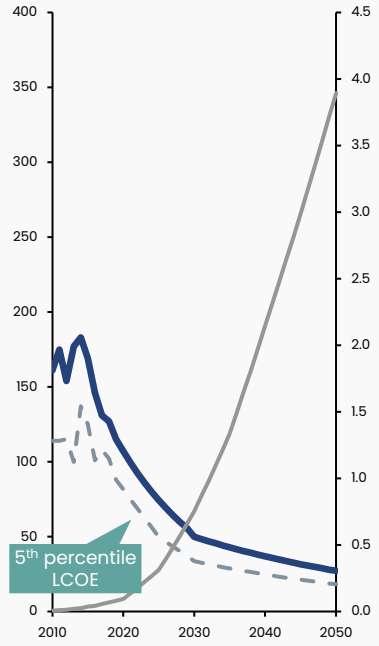
Revolution 1 (1990s) Onshore wind[2]



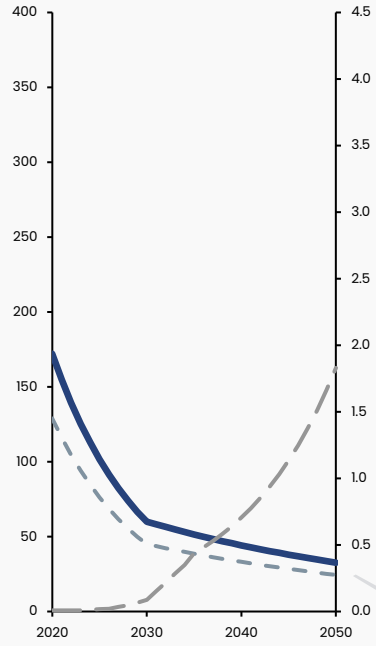
Revolution 2 (2000s) Solar PV[2]



Revolution 3 (2010s) Offshore shallow-water wind[2]



Revolution 4 (2020s) Deep-water wind[2]



Source: 1) The Carbon Trust 2) IRENA 2019; Fraunhofer ISE, McKinsey Energy Insights Global Energy Perspective, April 2020
2)Full lines represent the global weighted average LCOE in year of commissioning (USD / MWh), while the dotted lines represent the 5th percentile LCOE globally – the highest quality projects

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TwinWind™

Cutting edge technology

- Minimal environmental impact
- Higher power density
- Increased flexibility in site selection
- Access to better wind conditions
- Efficient maintenance
- Lower levelized cost of energy

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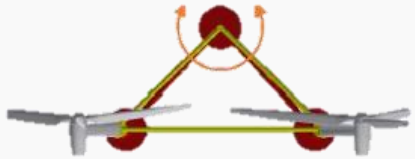
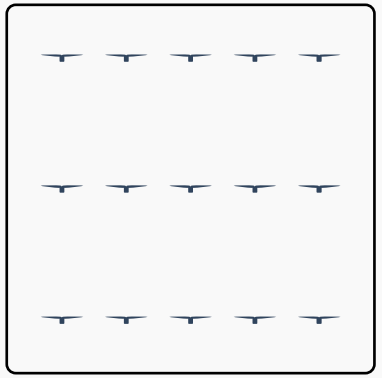
2023-02-08

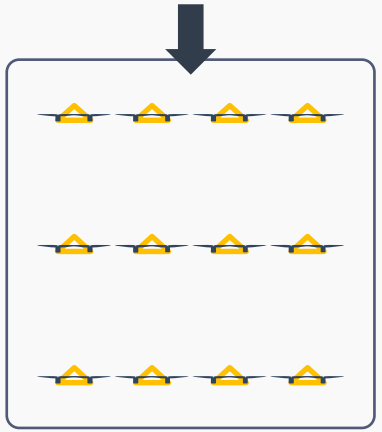
TWINWIND TECHNOLOGY



Turret mooring and passively vanes to wind direction

Tension leg or catenary mooring systems for minimal environmental footprint





Single turbine wind farm

- 15 turbines
- Mooring and cables for each turbine

Hexicon twin turbine wind farm

- 24 turbines
- 45% more capacity and electricity
- 33% less cable

= Lower LCOE

2022 HIGHLIGHTS
MARKET EXPANSION

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Q3 HIGHLIGHTS

2022

SOUTH KOREA
Signing of the world's first commercial-scale procurement of Vestas' state-of-the-art 15 MW wind turbines with the 1.3 GW MunmuBaran project in partnership with Shell.

UK
Winning the UK's first-ever competitive floating wind procurement with the 32 MW TwinHub project, using our proprietary TwinWind solution in the Celtic Sea.

IRELAND
Affirming an historic partnership with the Killybegs Fishing Organization in Ireland for more than 2 GW of offshore wind and hydrogen, to support the fishing community's decarbonization journey.

PROJECT DEVELOPMENT
Expansion of its patent recognition across more than 20 global markets.

ITALY
Confirmation of more than 7.1 GW of seabed and interconnection rights in Italy, one of Europe's markets in most need of accelerated decarbonization.

2023 LOOK AHEAD

PORTFOLIO GROWTH AND TWINWIND COMMERCIALIZATION

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KEY MARKETS

Estimated FID:

2.3GW <2026

11.5GW ~2027-2028

+5GW >2028 (early opportunities)

Total: ~20GW, Hexicon Share: +7.5GW

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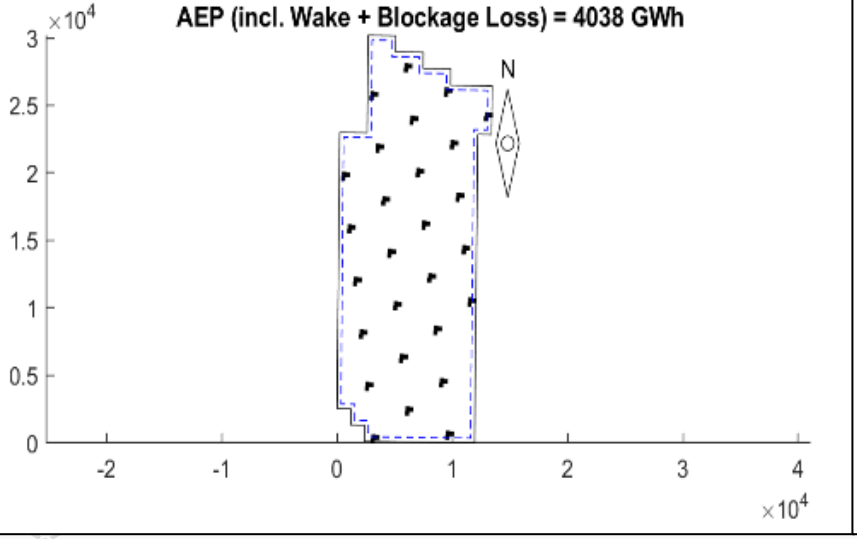
HALF PLATFORMS AND ARRAY CABLES. GREATER SPACING.
+55 GWH MORE AEP.

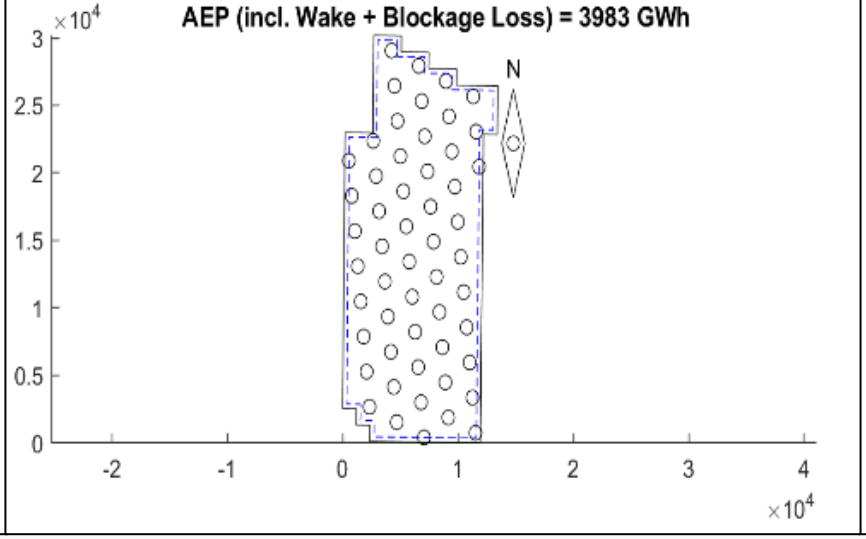
TwinWind™ with TLP

810 MW
27 platforms, 54 turbines (15.0 MW)
AEP (incl. wake loss only) = 4038 GWh, AEP Gross (0 % losses) = 4124 GWh
Wake loss = 2.08 %, Capacity factor = 56.91 %
Site area: 325.55 km^2
col spacing 15.10 D, row spacing 14.50 D
1.0 deg, 0.1 m/s wind resource bins
Blockage Loss = 0.00 %, Wake + Blockage Loss = 2.1 %
AEP (incl. Wake + Blockage Loss) = 4038 GWh



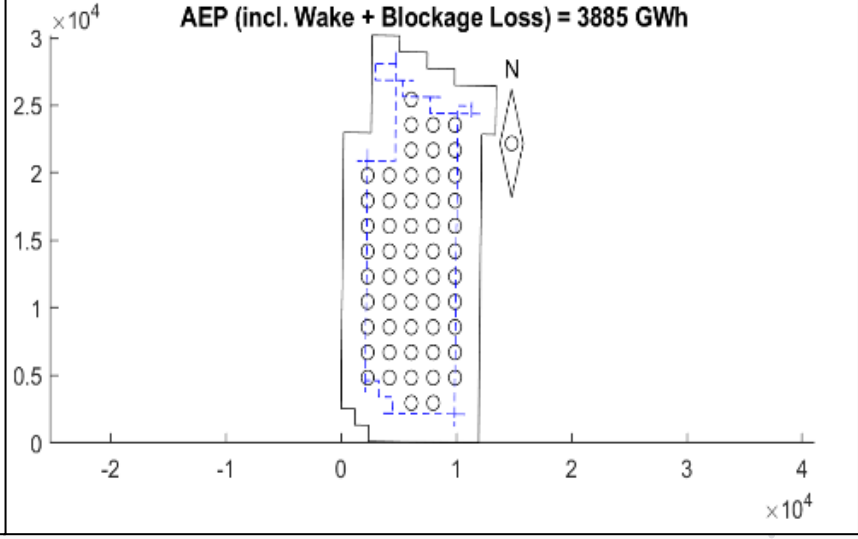
Single with TLP

810 MW
54 platforms, 54 turbines (15.0 MW)
AEP (incl. wake loss only) = 3983 GWh, AEP Gross (0 % losses) = 4124 GWh
Wake loss = 3.42 %, Capacity factor = 56.14 %
Site area: 325.55 km^2
col spacing 10.70 D, row spacing 9.50 D
1.0 deg, 0.1 m/s wind resource bins
Blockage Loss = 0.00 %, Wake + Blockage Loss = 3.4 %
AEP (incl. Wake + Blockage Loss) = 3983 GWh



Single with catenary

810 MW
54 platforms, 54 turbines (15.0 MW)
AEP (incl. wake loss only) = 3885 GWh, AEP Gross (0 % losses) = 4124 GWh
Wake loss = 5.78 %, Capacity factor = 54.76 %
Site area: 325.55 km^2
col spacing 7.90 D, row spacing 7.80 D
1.0 deg, 0.1 m/s wind resource bins
Blockage Loss = 0.00 %, Wake + Blockage Loss = 5.8 %
AEP (incl. Wake + Blockage Loss) = 3885 GWh



California Example Case: Morro Bay Central

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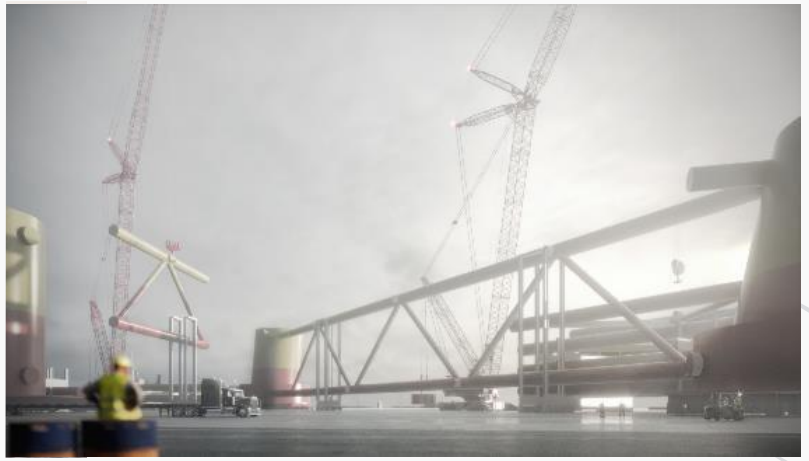
PREPARING FOR LARGE-SCALE DEPLOYMENT



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