Offshore Wind In 2023: Navigating Turbulence

The offshore wind sector experienced clear challenges in 2023 amid inflationary pressures. Nevertheless, the sector showed some resilience as new project investment reached a record high globally ($59bn; 19.8 GW). Meanwhile, 'wind' vessel markets remained tight with WTIV and 'W2W' dayrates rising by ~30% y-o-y, and the C/SOV newbuild ordering wave continued (23 orders).

Positivity Amid Challenges

2023 proved to be a turbulent year for the offshore wind sector as it faced inflationary pressures. The viability of at least 13 GW of planned capacity in the US was impacted (with 9.7 GW of offtake contracts cancelled or at risk of being cancelled), while ~7 GW in the UK was impacted. Furthermore, several major developers reported impairments due to delayed (or cancelled) projects, while some focused on financial discipline and withdrew from auctions.

Despite the commercial challenges, an estimated $59bn of new project CAPEX was committed globally in 2023, representing 19.8 GW and a record in $ and GW terms (marginally above the previous high of 2020). While inflation added to CAPEX values, firm investment was driven by large FIDs in Europe, where a record $33bn (9.2 GW) was committed (+33% and +24% on 2020 respectively). Some FIDs previously scheduled for 2022 slipped into 2023 also boosting the total.

As of end-2023, active offshore wind capacity stood at 68 GW globally having grown by 10% across the year. Last year, 6.2 GW started up, including 2.3 GW in Europe and 3.5 GW off China.

Mixed Sentiment For Newbuilds

Sentiment for newbuild ordering diverged between 'wind' vessel sectors in 2023. The ordering wave continued in the C/SOV sector, with 23 orders placed globally (following a record 24 in 2022), representing ~$1.5bn of investment, up 7% y-o-y. Ordering was dominated by European owners (19 orders) and focused on CSOVs (20). C/SOV owners also continued to support charterers to be 'green through the supply chain'; all 53 C/SOVs on order will feature batteries, while 13 will be alternative fuel capable. Firm ordering activity was also seen in the cable lay sector (7 orders).

Meanwhile, WTIV ordering eased back in 2023; only 5 orders were reported globally, down from 30 in 2022. Sentiment for ordering in China softened following a record 26 orders in 2022 (only 4 orders were placed last year), while concerns over increasing turbine sizes and project delays saw Western owners hesitant to place orders.

Vessel Markets Remain Tight

'Wind' vessel markets strengthened further in 2023. European WTIV utilisation averaged a robust 93% during the peak season on the back of firm installation demand. With the European spec WTIV market expected to tighten further in the coming years, several charterers booked 4th generation WTIVs for upcoming projects at rates reportedly >€300,000/day (~30% above start-2023). Similarly, the 'W2W' market remained tight across 2023 due to firm demand and limited available supply as several MSVs returned to the oil and gas sector. In Europe, the rate assessment for a >40 Pax, SPS coded 'W2W' vessel peaked at €56,000/day in Q2-23, up 27% y-o-y.

While 2023 was in many ways a turbulent year for offshore wind, the long-term outlook for growth of the sector remains positive. By 2050, offshore wind could account for between 7-10% of the global energy mix (up from just 0.4% today), with the offshore wind sector expected to play a vital role in the ongoing 'Energy Transition'.

The author of this feature article is Alfie Bavin. Any views or opinions presented are solely those of the author and do not necessarily represent those of the Clarksons group.

2023 At A Glance

	2012-22	2022	2023	%
1. Global Offshore Wind Market (end-year/full-year)				
Active Farms*	18%	279	299	7%
Active Cap. (GW)*	30%	61.8	68.0	10%
Active Turbines*	23%	12,326	12,979	5%
Start-Ups (GW)"	5.7	8.9	6.2	-31%
CAPEX ($bn)"	26.1	23.6	59.1	150%
Eur. CAPEX ($bn)"	12.6	2.4	33.0	1279%
China Cap. (GW)*	63%	30.4	33.9	12%
UK Cap. (GW)*	18%	13.7	14.8	8%
UK Power Prices (€/MWh)^		234.2	110.2	-53%
Germ. Power Prices (€/MWh)^		232.8	97.6	-58%
2. Offshore Wind Fleet (end-year/full-year)†				
'Wind' Fleet*	11%	1,406	1,491	6%
Orderbook*	3%	229	245	7%
NB Contracts"	82	142	105	-26%
NB Invest. ($m)"	2,630	6,986	3,570	-49%
Deliveries"	75	98	89	-9%
3. WTIV Market (end-year/full-year)				
Fleet*	13%	77	101	31%
Orderbook*	18%	53	34	-36%
NB Contracts"	10	30	5	-83%
NB Invest. ($m)"	1,206	4,374	810	-81%
Deliveries"	6	3	24	700%
Global WTIV Util. (annual avg.)		70%	71%	+1pp
Eur. WTIV Util. (annual avg.)		84%	81%	-3pp
Eur. WTIV Util. (peak season)		93%	93%	0pp
European WTIV Dayrates (€,000/day)^				
WTIV 4th Generation		210.6	277.5	32%
WTIV 3rd Generation		167.7	218.3	30%
WTIV 4th Gen. NB Price ($m)^		335.0	365.0	9%
4. 'W2W' Vessel Market (end-year/full-year)				
Fleet*	35%	80	89	11%
Orderbook*	21%	40	53	33%
NB Contracts"	7	24	23	-4%
NB Invest. ($m)"	397	1,445	1,545	7%
Deliveries"	3	4	9	125%
European 'W2W' Vessel Dayrates (€,000/day)^				
SOV Long-Term Charter		21.6	23.6	9%
W2W >40 Pax SPS		40.6	51.7	27%
CSOV NB Price (€m)^		59.4	63.4	7%
5. CTV Market (end-year/full-year)				
Fleet*	10%	611	644	5%
Orderbook*	1%	98	127	30%
NB Contracts"	41	64	63	-2%
NB Invest. ($m)"	226	347	384	11%
Deliveries"	40	45	34	-24%
European CTV Dayrates (€/day)^				
18-24m 12 Pax 12hr		2,775	3,021	9%
24-32m 24 Pax 12hr		3,800	4,300	13%
32m NB Price (€m)^		5.6	6.2	11%

	2024	2030	2050
6. Long-Term Energy Transition (start-year/full-year) #			
Energy Cons. (btoe), GT	15.1	16.6	17.3
Energy Cons. (btoe), RDC	15.1	15.9	15.8
Offshore Wind Cap. (GW), GT	89.1	255	1,198
Offshore Wind Cap. (GW), RDC	89.1	313	1,483
% Offshore Wind, GT	0.4%	1%	7%
% Offshore Wind, RDC	0.4%	2%	10%

*2012-22: *10-year CAGR. "10-year average from 2013-22. †Includes 'non-dedicated' construction and support units. ^Annual averages. #Clarksons Research's Energy Transition Model. GT = Gradual Transition, RDC = Rapid Decarbonisation.*

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