Market Update
North Sea Rigs & AHTS

MOP Kristiansand

April 2024

SSY Global

Established in **1880**

Athens	Kristiansand	Shanghai
Copenhagen	London	Singapore
Dubai	Madrid	Stamford
Geneva	Mumbai	Sydney
Genoa	New York	Tokyo
Hamburg	Oslo	Vancouver
Hong Kong	Rio de Janeiro	Varna
Houston	Seoul	Zug

500+ Shipping experts

24 Offices

9 Broking divisions

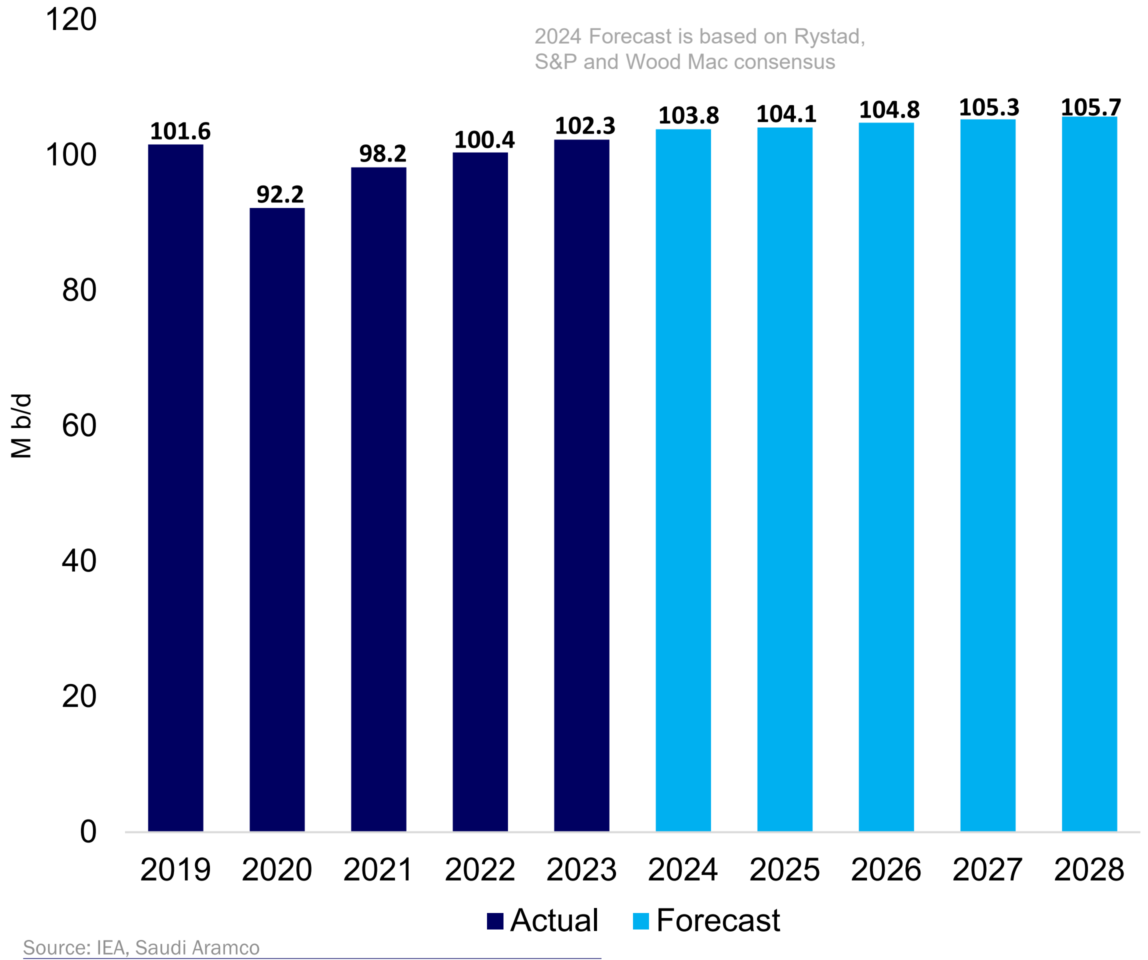
Acquisition of Westshore Shipbrokers F3O Offshore Services

Kristiansand, Oslo, Dubai and Hamburg

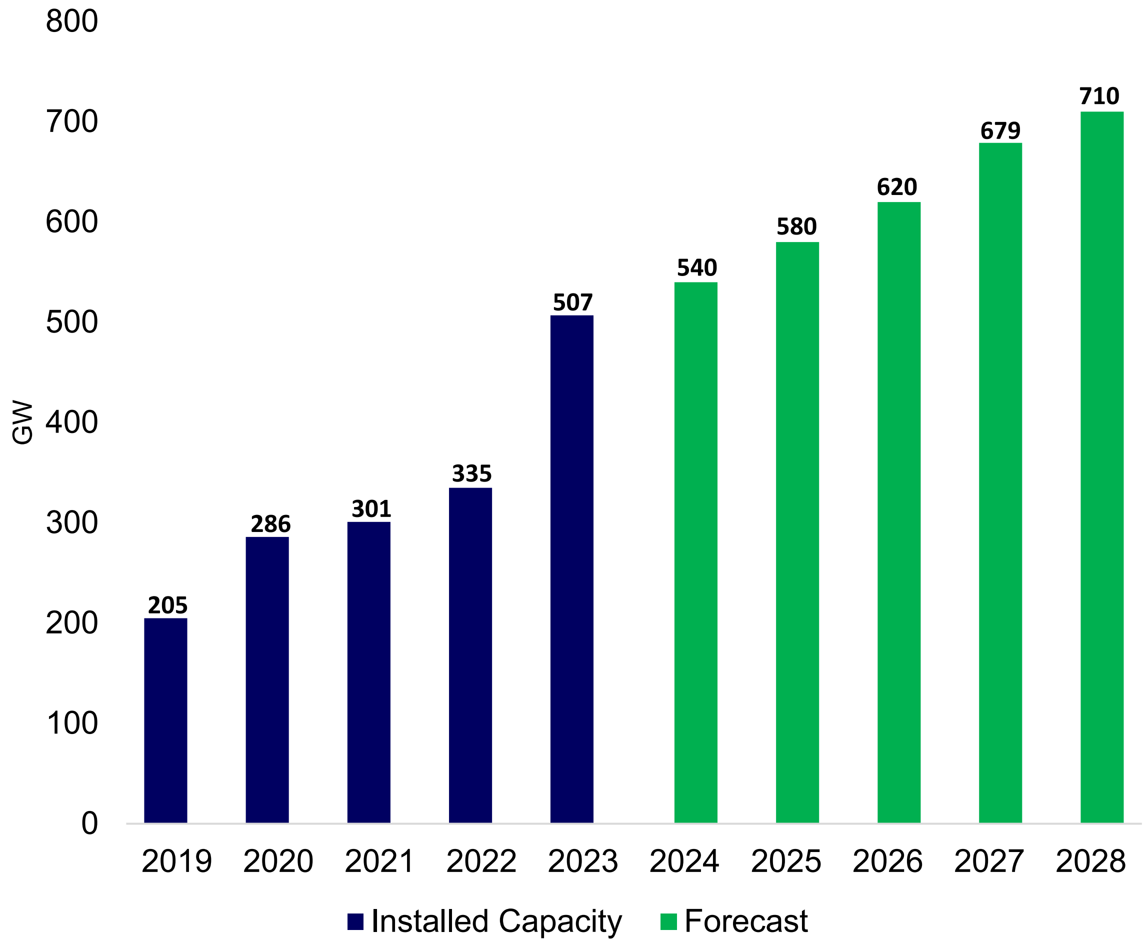
Offshore

Global Oil Market

Record high global oil demand expected in 2024



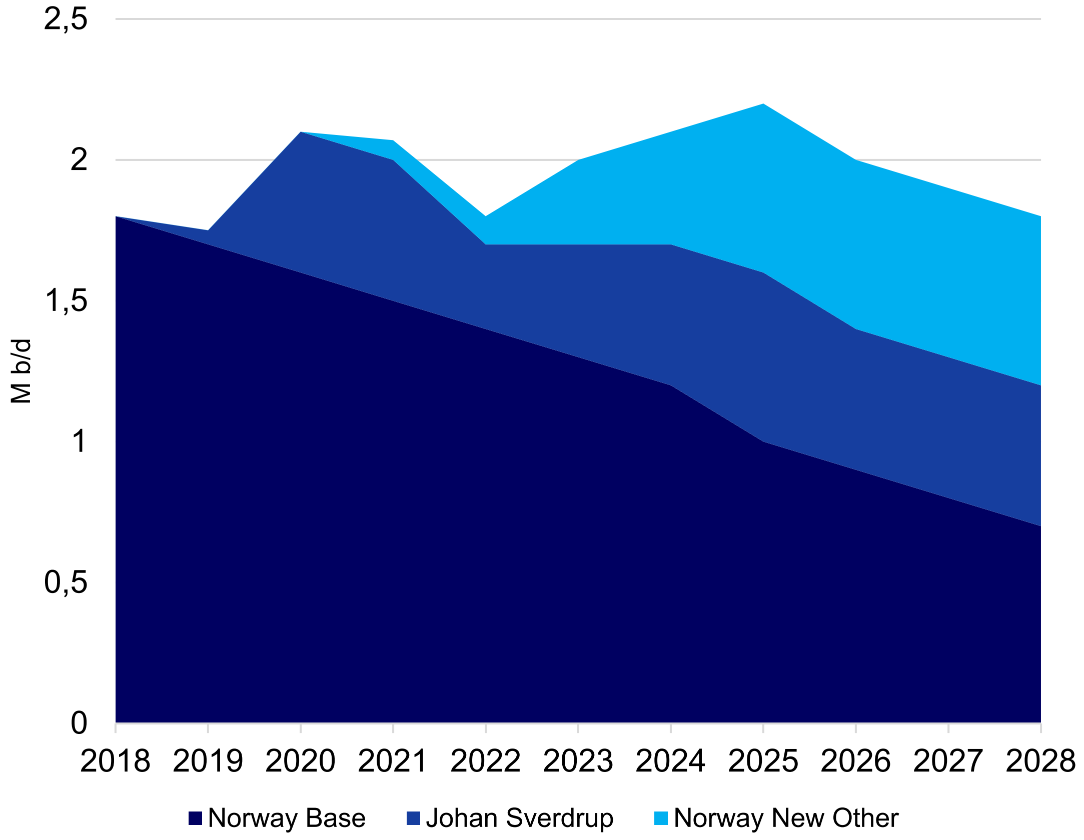
Record amount of installed capacity from renewables in 2023



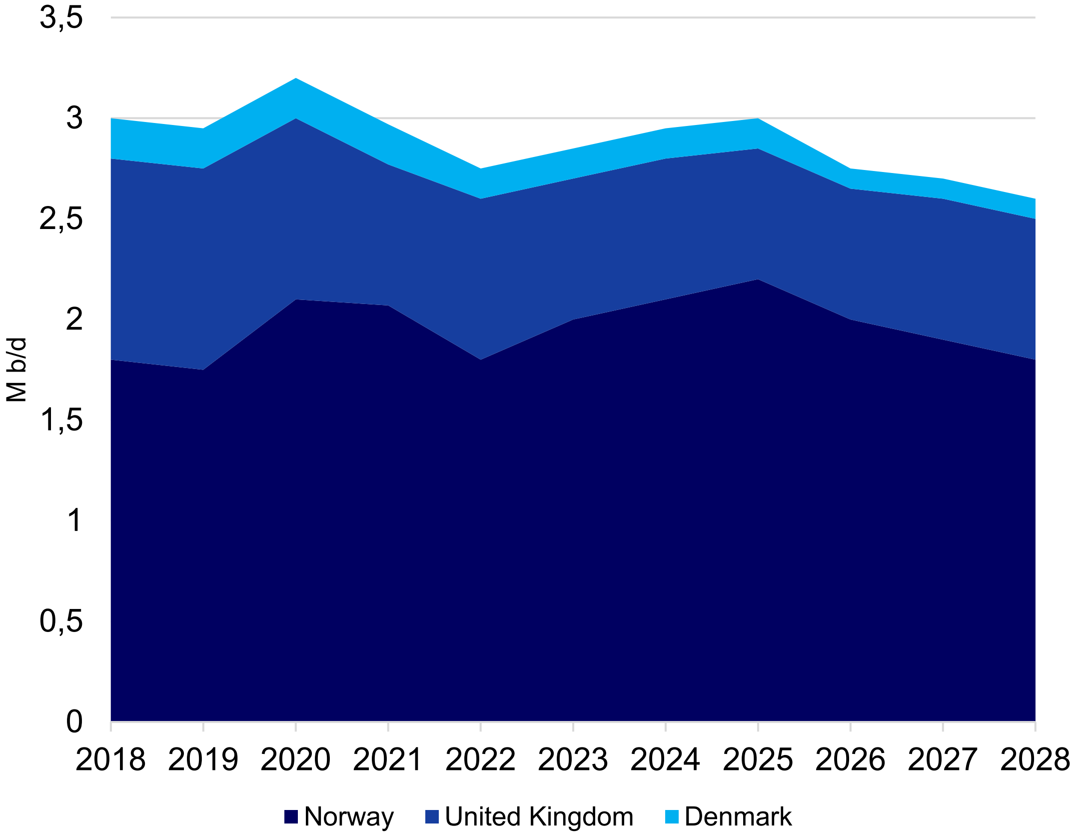
Source: IEA, Saudi Aramco

North Sea Production

Norway is ramping up production towards 2025



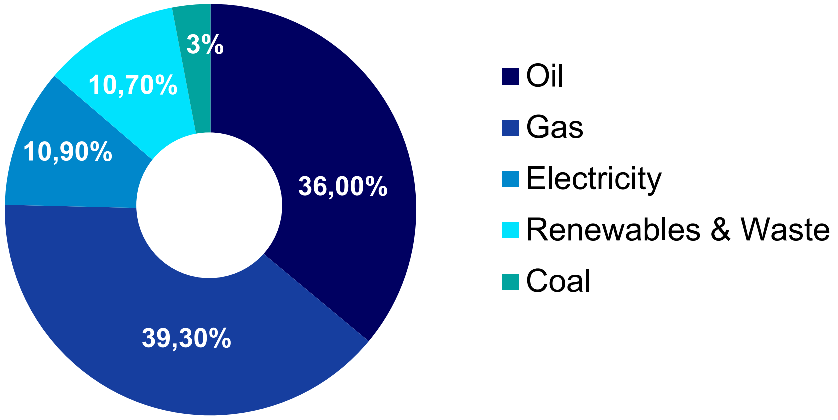
Stable but declining total production from the North Sea



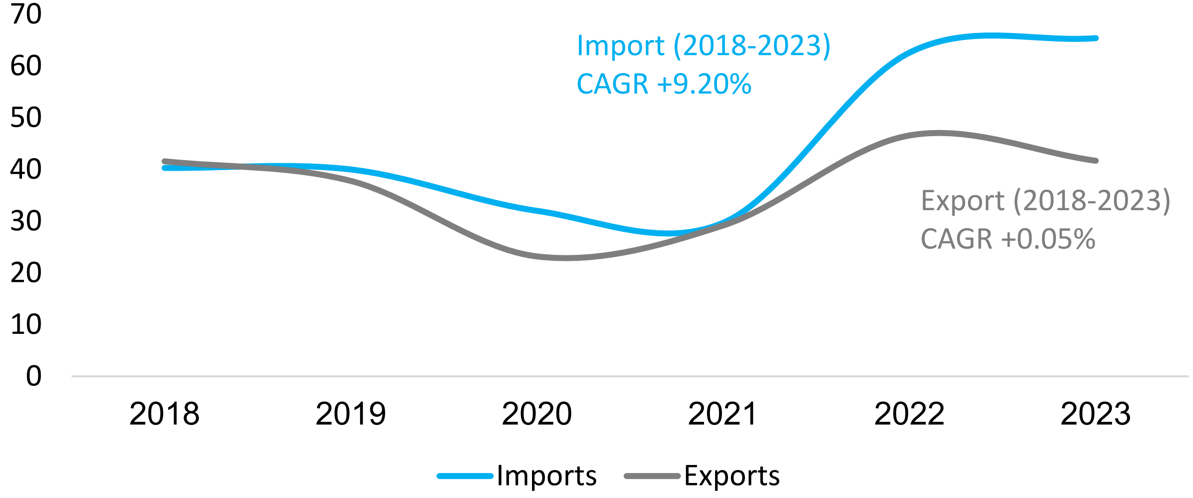
Source: IEA

UK increasingly dependent on Norwegian and US O&G

Energy mix 2023



Oil trade value (£bn)



Source: Department for Energy Security & Net Zero, BDO, Rystad

The UK Winfall tax puts total tax burden for O&G companies to 75% and was recently extended into March 2029

2023 Highlights

- FID on Rosebank late 2023. FPSO startup 2026-2027 with offshore operations to kick off this summer. Drilling campaign set to start in Q2 2025. 245 million Barrels will be produced in the first five years, with remaining 55 million between 2032 and 2051.
- FID on Teal West was concluded which plans to start drilling this summer. Subsea tieback to be installed H1 2025 to the Anasuria FPSO. Peak production of 59,000 bpd

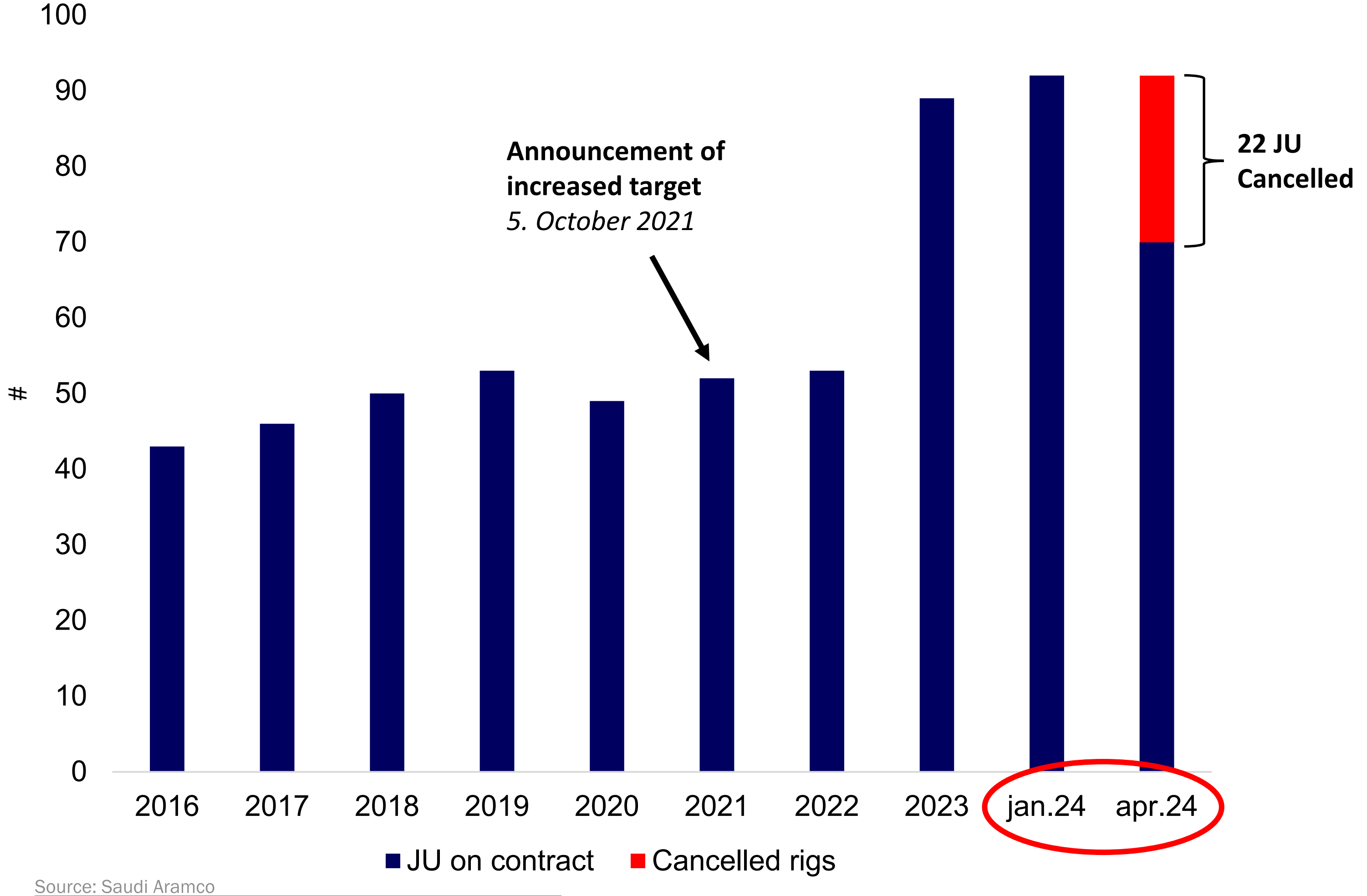
Upside potential: High sanctioning activity, more than 10 FIDs scheduled for the year

Downside potential: Labour Party wins general election

Saudi Aramco cancels contracted Jack-ups

Aramco was instructed by the government in the country to reduce its output capacity target of 13 million bpd

Aramco – Jack-ups on contract



Source: Saudi Aramco

Aramco - Projects to come on stream

2024 **Damman** +0.025 million bpd

2025 **Berri** +0.25 million bpd

2025 **Marjan** +0.3 million bpd

2026 **Zuluf** +0.6 million bpd

2027 **Damman** +0.05 million bpd

2027 **Manifa** +0.3 million bpd

2027 **Safaniyah** +0.7 million bpd

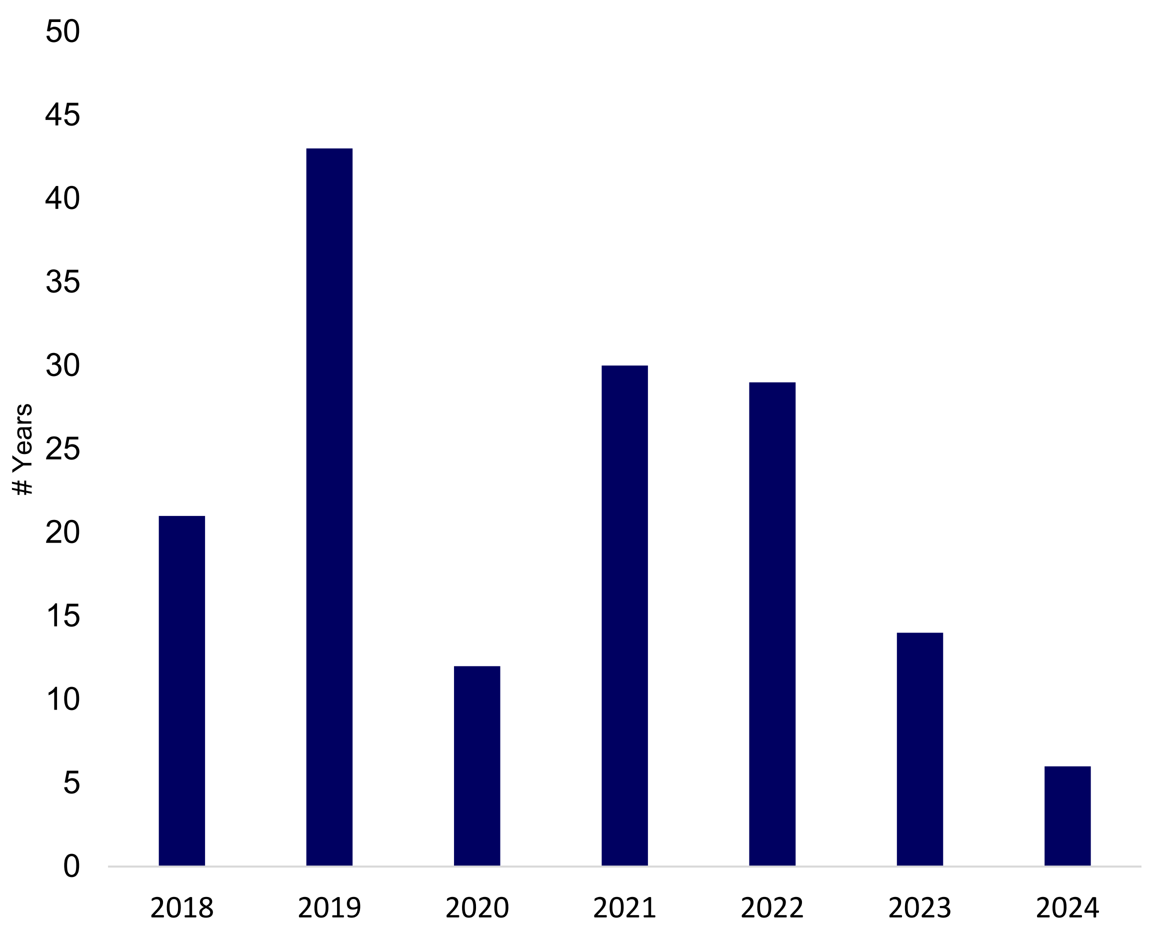
Mega projects currently on hold

North Sea Jack-ups

Year	Supply	Contracted	Utilization
2017	46	25	54%
2020	40	25	62%
2023	32	30	93%

- Balanced conditions in the North Sea
- Several jack-ups rolling of contract in Q2 2025
- Jack-ups usually present lower lead times than floaters
- Dayrates might take a hit in the short-term due to Aramco annoucement
- As several fields are closing in on end of life there has been a growing demand for P&A work scopes which is expected to persists

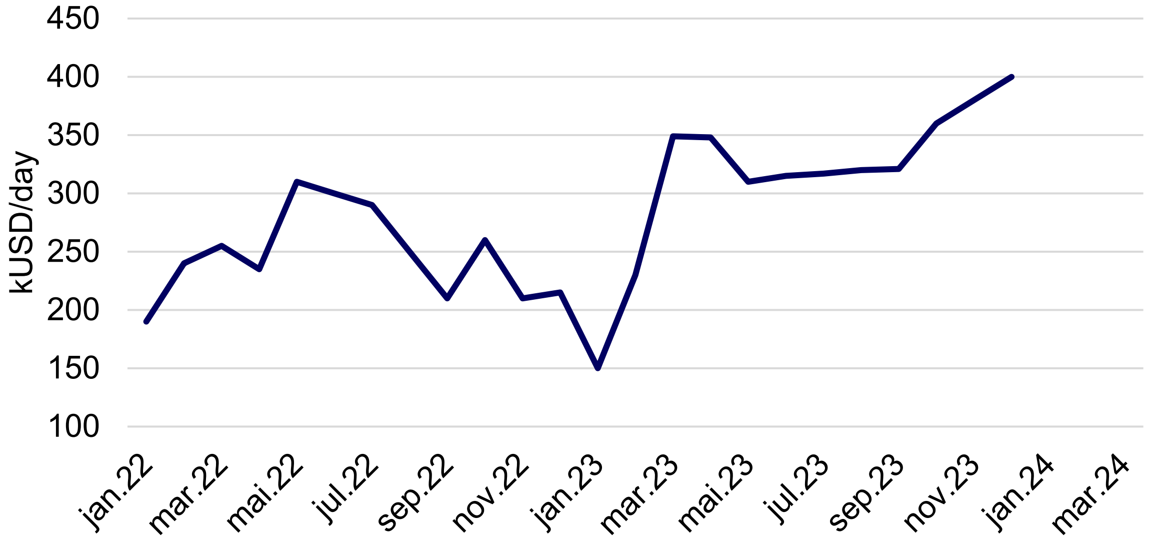
JU backlog added 2018-2024



Source: SSY, Esgian Rig Service

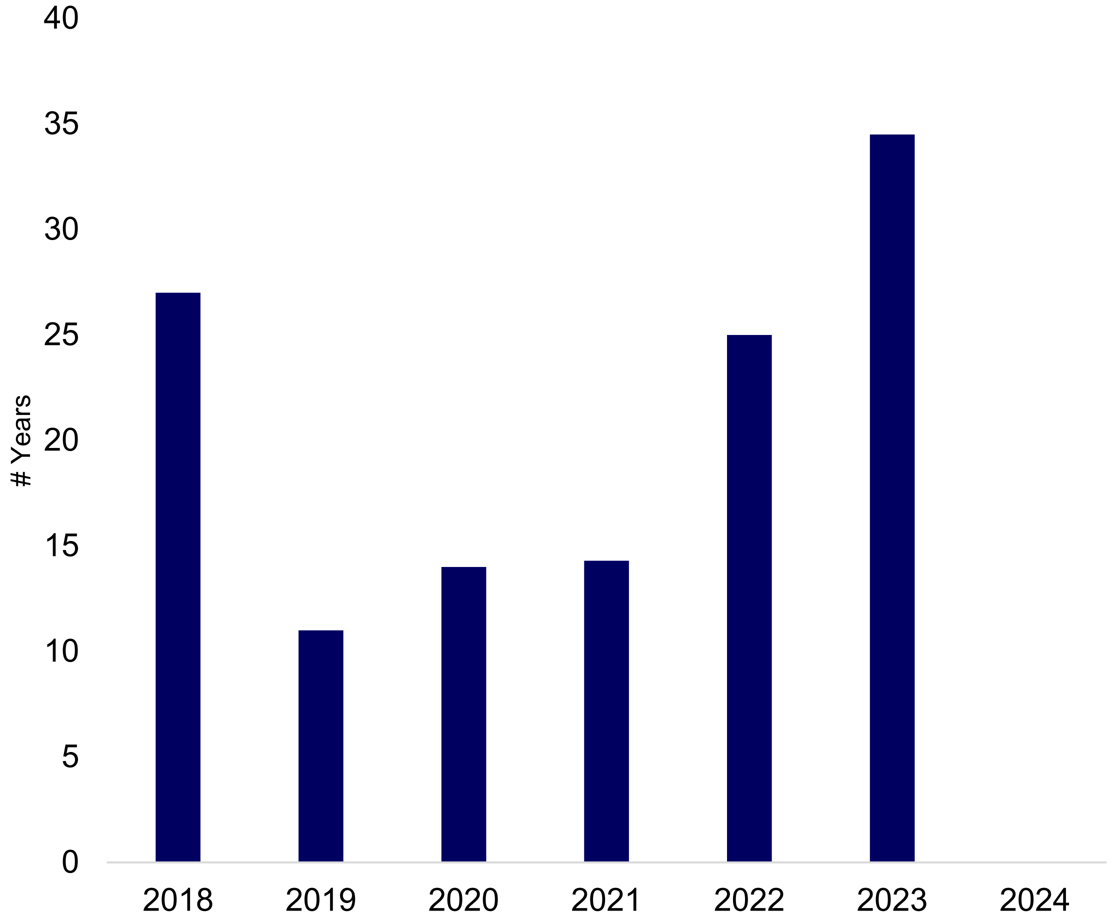
North Sea Semi-subs

SS North Sea avg. Dayrates



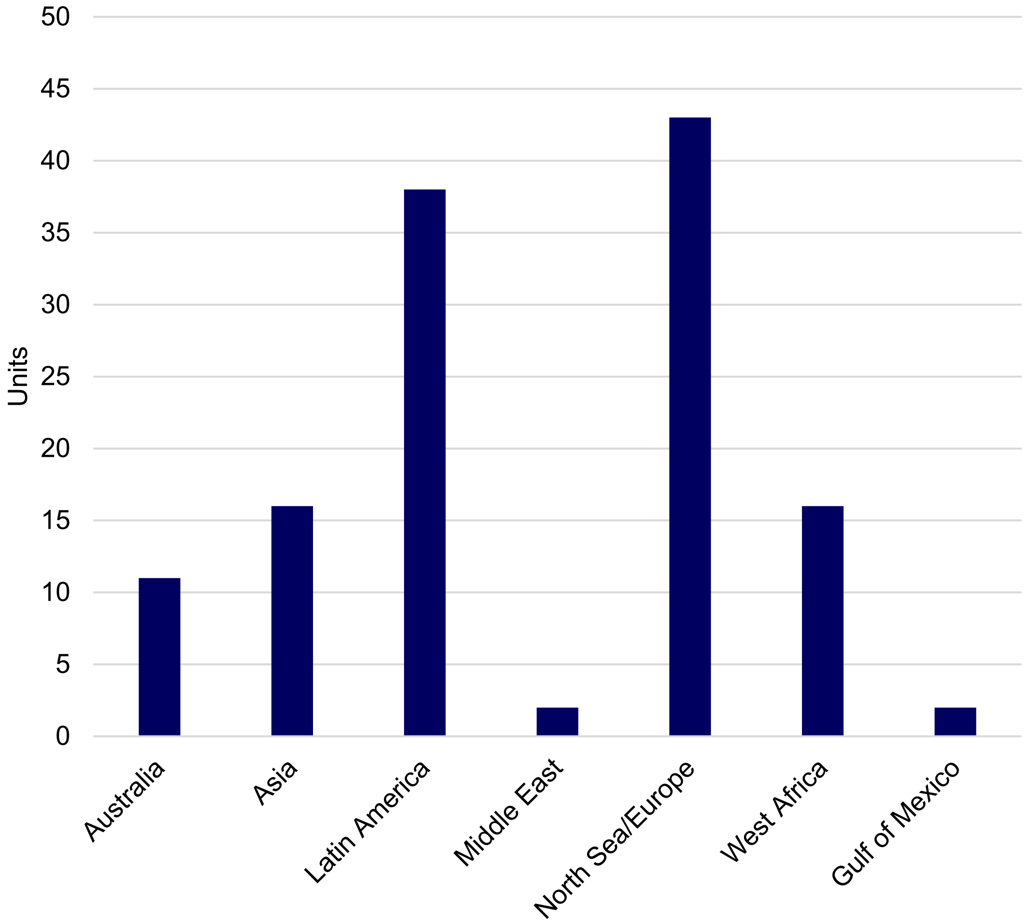
- Currently 28 SS in the North Sea area
- Stagnating contract activity during 2019-2021
- Dayrates has been lagging other regions due to slow demand
- Tides turned in 2023 with average dayrates moving to $300,000
- Balanced market and good visibility into end of 2025, might see some new contract towards the end of the year

SS backlog added 2018-2024



Source: SSY, Esgian Rig Service

Current location of competitive AHTS fleet >200 BP



North Sea/Europe

Units: 43

Average year: 2010

Latin America

Units: 38

Average year: 2012

Brazilian flagged: 25

Asia

Units: 16

Average year: 2009

Australia

Units: 11

Average year: 2011

West Africa

Units: 16

Average year: 2012

Middle East

Units: 2

Average year: 2004

Gulf of Mexico(ex. US flagged)

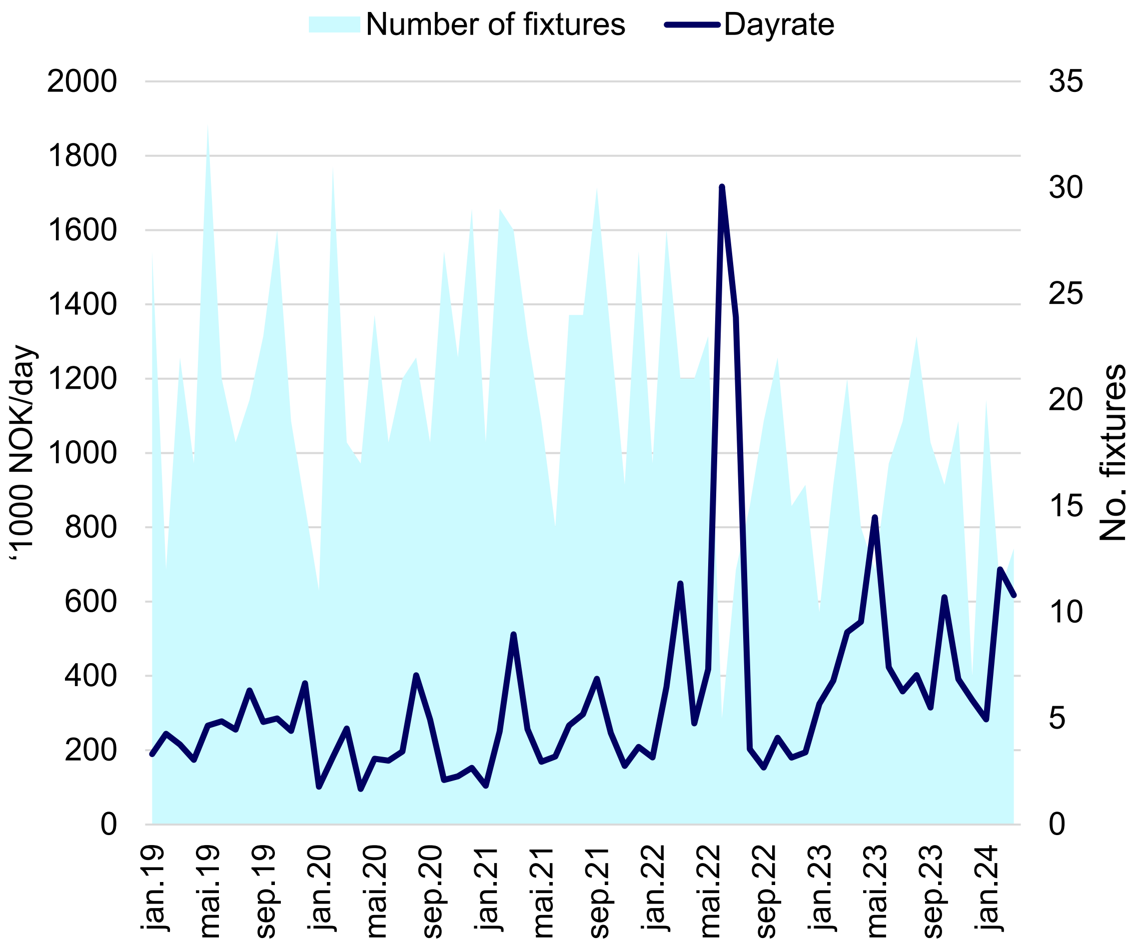
Units: 2

Average year: 2006

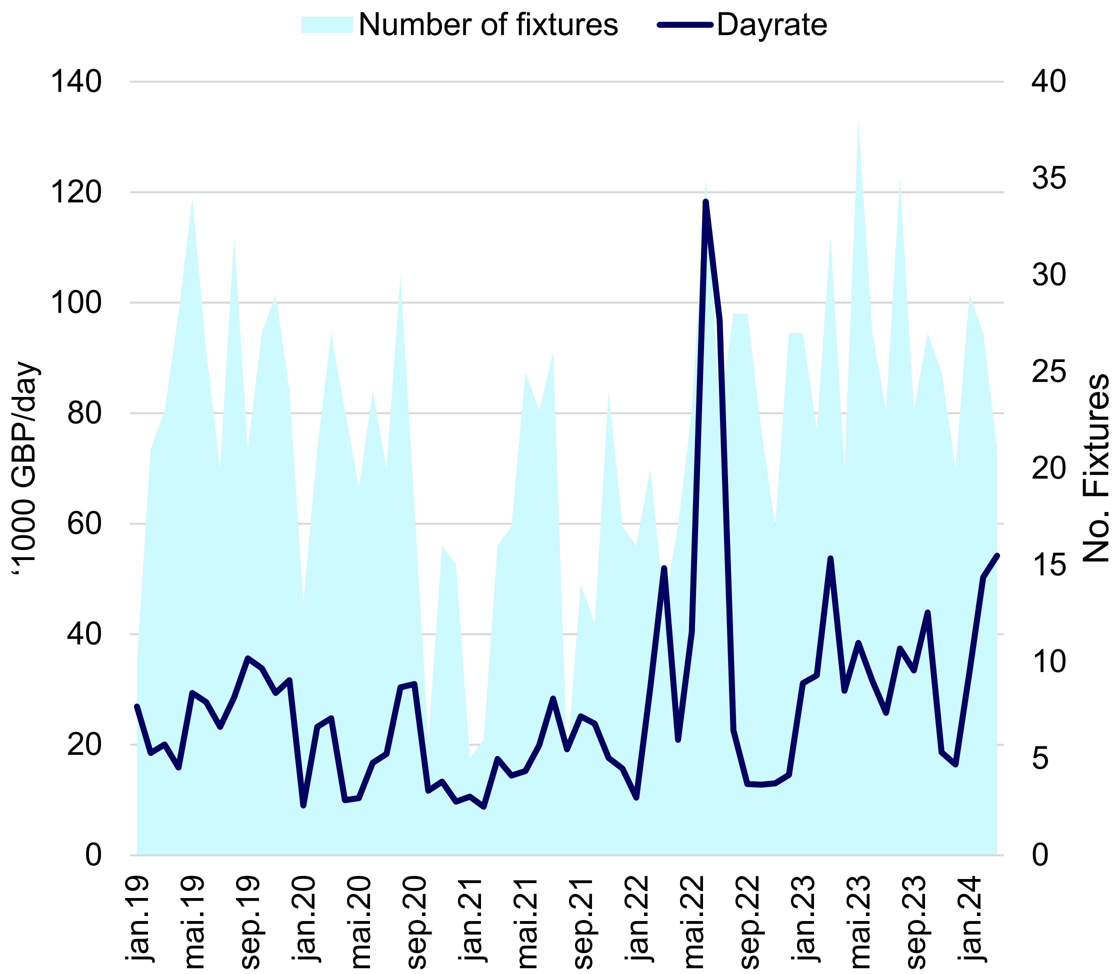
Source: SSY

Norway and UK AHTS Dayrates

Norway - Historical AHTS Spot Rates

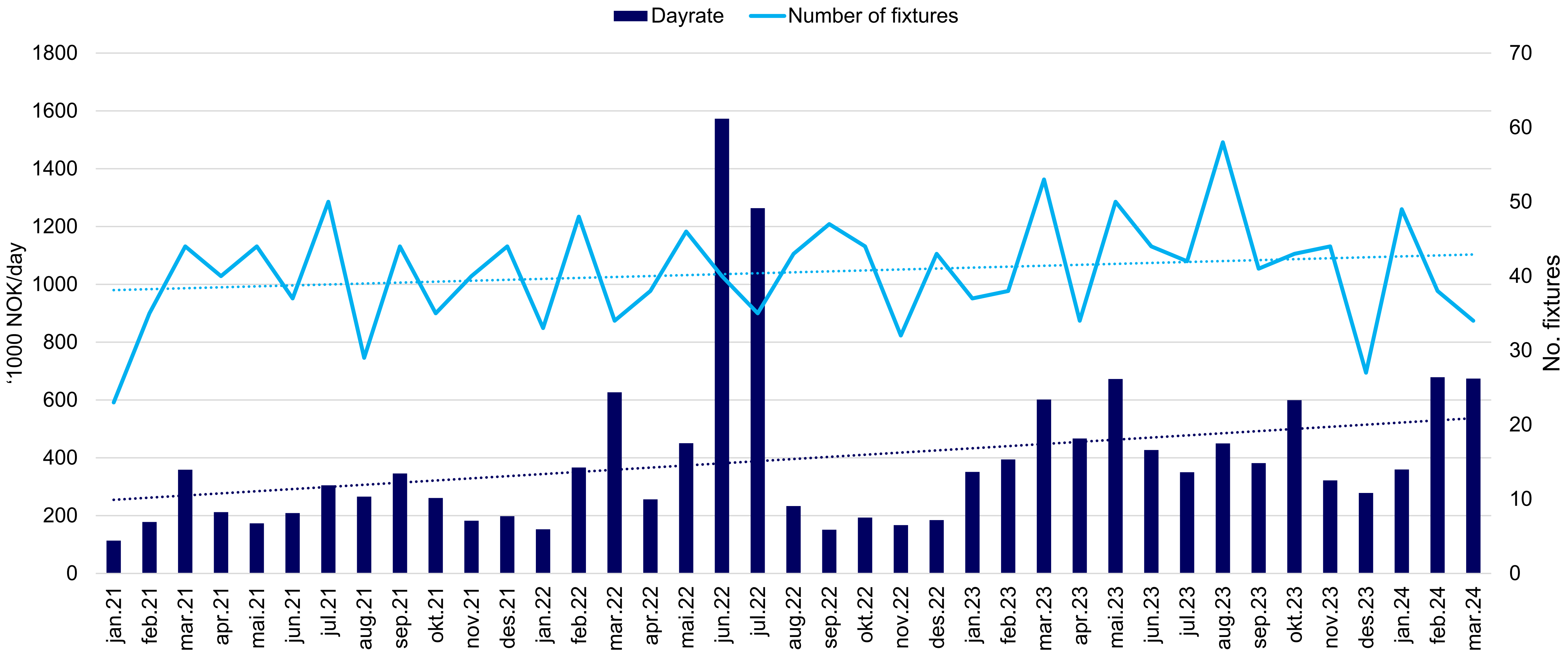


UK - Historical AHTS Spot Rates



Source: SSY

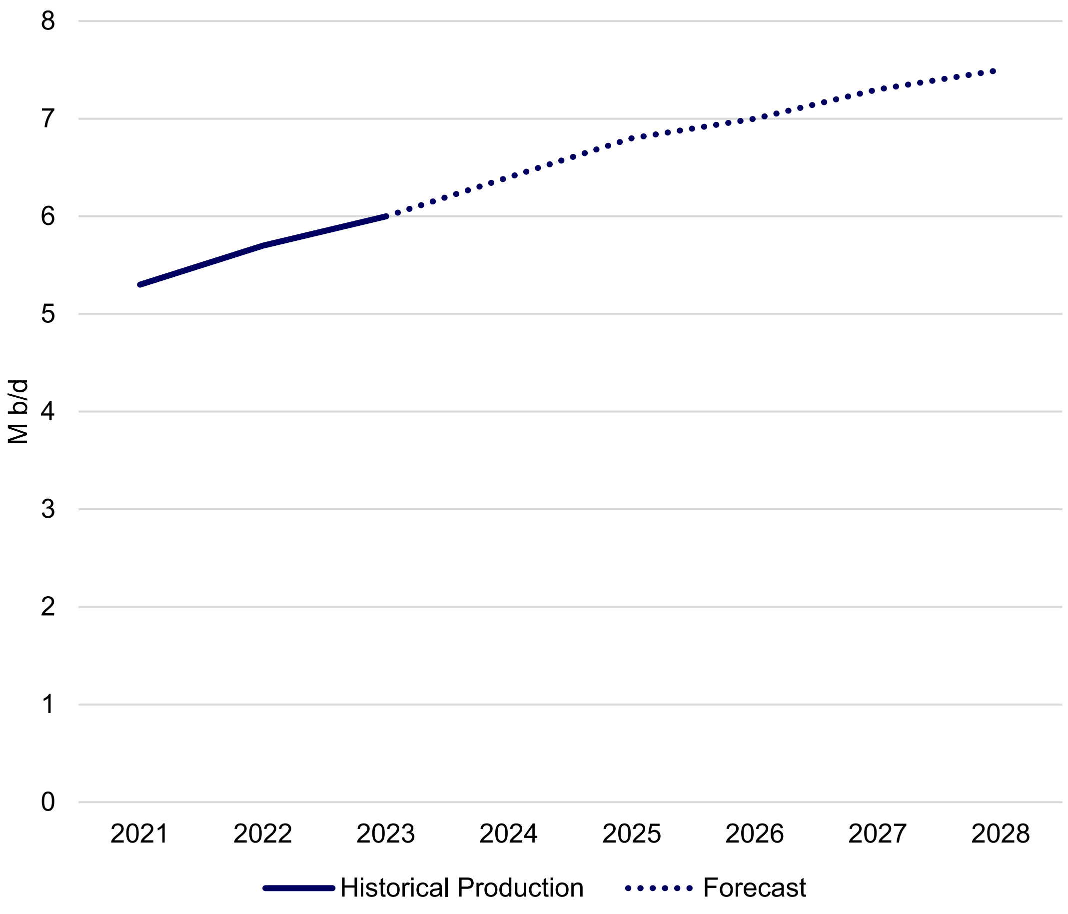
North Sea AHTS Dayrates



Source: SSY

Latin America

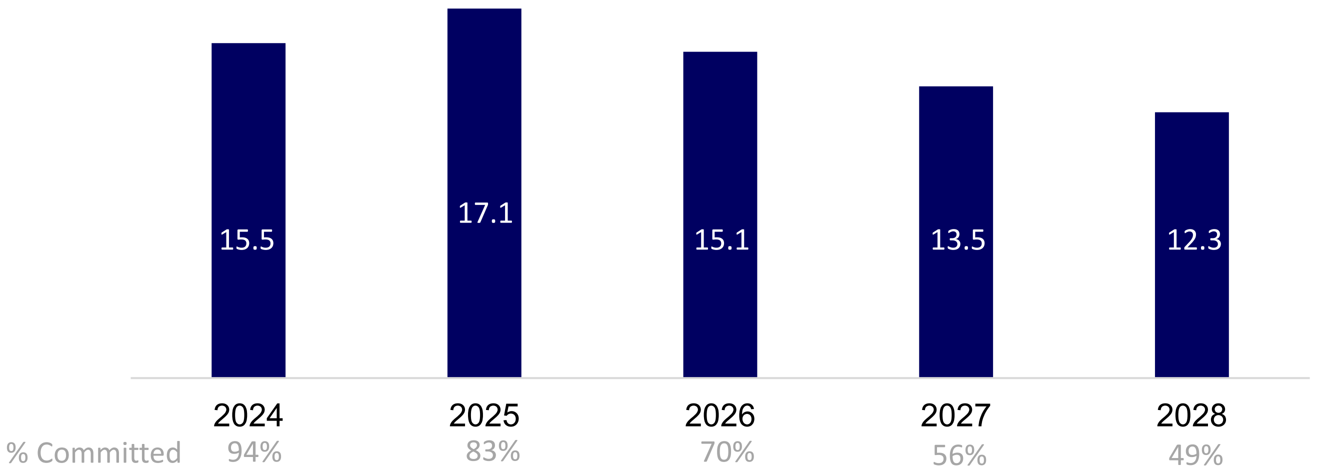
Latin America – Expected production



Market drivers

- Guyana currently has three operational FPSO's and ExxonMobil has plans of 1 new FPSO annually over the next five years. In addition, we saw eight new oil licenses being awarded in the country by end of October last year expected to increase semi-sub count in the country
- Trinidad is the 17th largest producer of natural gas with 25 of 30 fields located offshore. New fields are currently under implementation to increase the countries gas output, and we expect offshore activity to ramp up in 2025-2027
- Suriname is expected to launch two FPSOs within 2028 through the TotalEnergies/Apache JV
- Brazil has 16 FPSO's scheduled to be deployed within 2028

Petrobras E&P CAPEX – USD Billions



Source: IEA, Petrobras, SSY

Brazil FPSO Schedule

2024

Mero 3
Marechal Duque de Caxias
180,000 bpd

Atalanta
Atlanta FPSO
50,000 bpd

2025

IPB
Maria Quitera
100,000 bpd

Búzios 7
Alm. Tamandaré
225,000 bpd

Mero 4
Alex. De Gusmão
180,000 bpd

Búzios 6
P-78
180,000 bpd

Bacalhau
Bacalhau FPSO
200,000

2026

Búzios 8
P-79
180,000

Búzios 9
P-80
225,000 bpd

2027

Búzios 10
P-82
225,000 bpd

Búzios 11
P-83
225,000 bpd

Revit
Albacora
120,000 bpd

2028

REVIT BRC/CRT
100,000 bpd

SEAP 2
120,000 bpd

SEAP 1
120,000

BM-C-33
Pão de AÇÚCAR
126,000 bpd

Source: Petrorbas, Equinor. Enauta

West Africa

Upoming FPSO installations 2024

- FPSO Tortue is set to be installed at BP's Greater Tortue Ahmeyim (GTA) project site in Q2 2024 on the coast of Mauritania and Senegal

- 1x FPSO and 1x FSO to be installed on the Phase 2 development of the Baleine Field in Cote d'Ivoire. Offshore operations are scheduled for Q3 2024

Nigeria and Angola

- Nigeria – New deepwater projects to come on stream
    - 2026 – TotalEnergies, Preowei Phase 1 (65,000 bp/d)
    - 2027 – Shell, Bonga North (120,000 bp/d)
    - 2029 – ExxonMobil, Owowo (160,000 bp/d)

- Angola – Status and outlook
    - Angola currently has five active drillships
    - Due to increased activity, we might see demand for three more rigs during 2024/2025
    - Five FPSO's are expected to be deployed in Angola towards 2030.
        - Two by Azule, a BP/Eni JV
        - Two for TotalEnergies
        - One by Somoil, a local operator

FPSO overview

- There are currently roughly 200 FPSO operating globally with 56 FPSO units in the global fleet reaching the end of their design life in the next five years

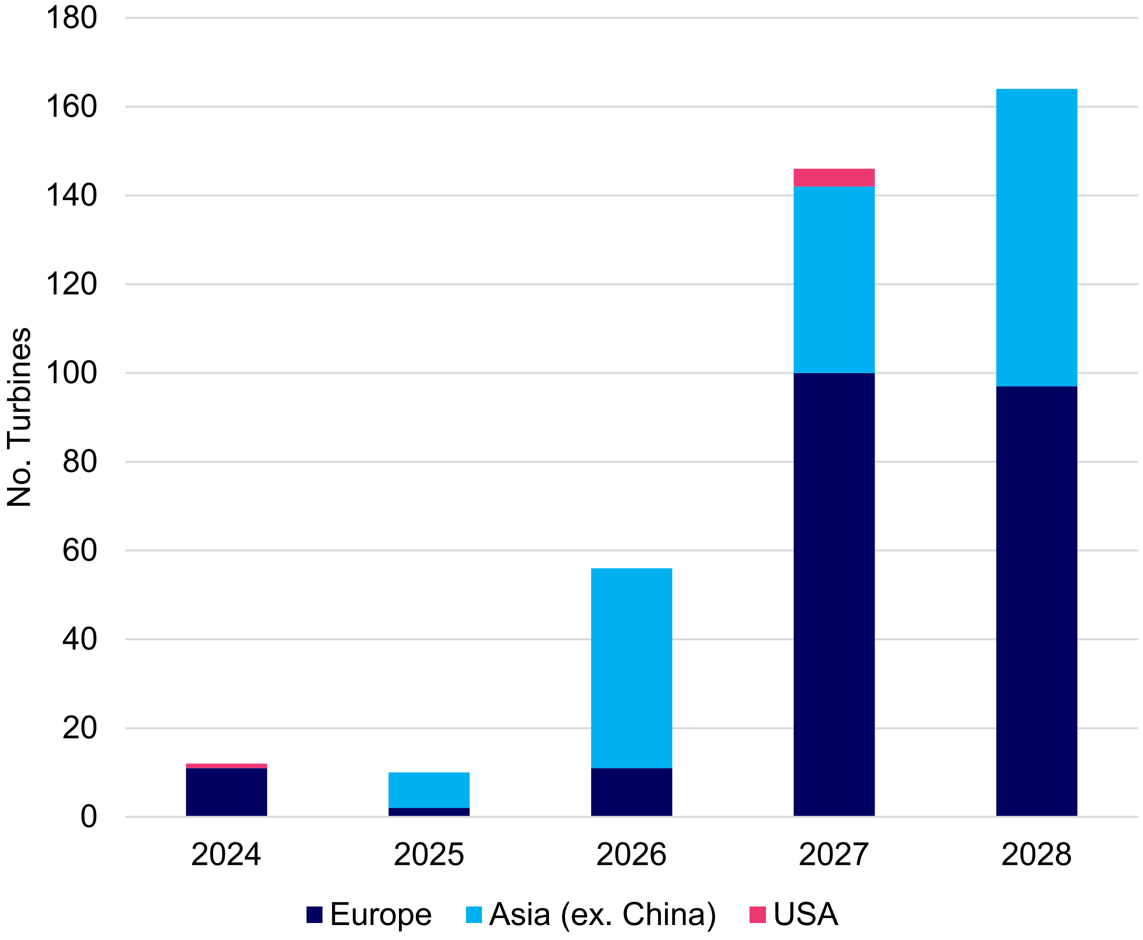
- Nigeria and Angola has both roughly 15 FPSOs each operating in their waters. Nigeria represents a high average age for the FPSOs of 30 years

- As the oil industry in the region is growing and putting excess effort on safety and better conditions for workers, we expect new FPSOs to be contracted during 2024

Source: Westwood, Market Research

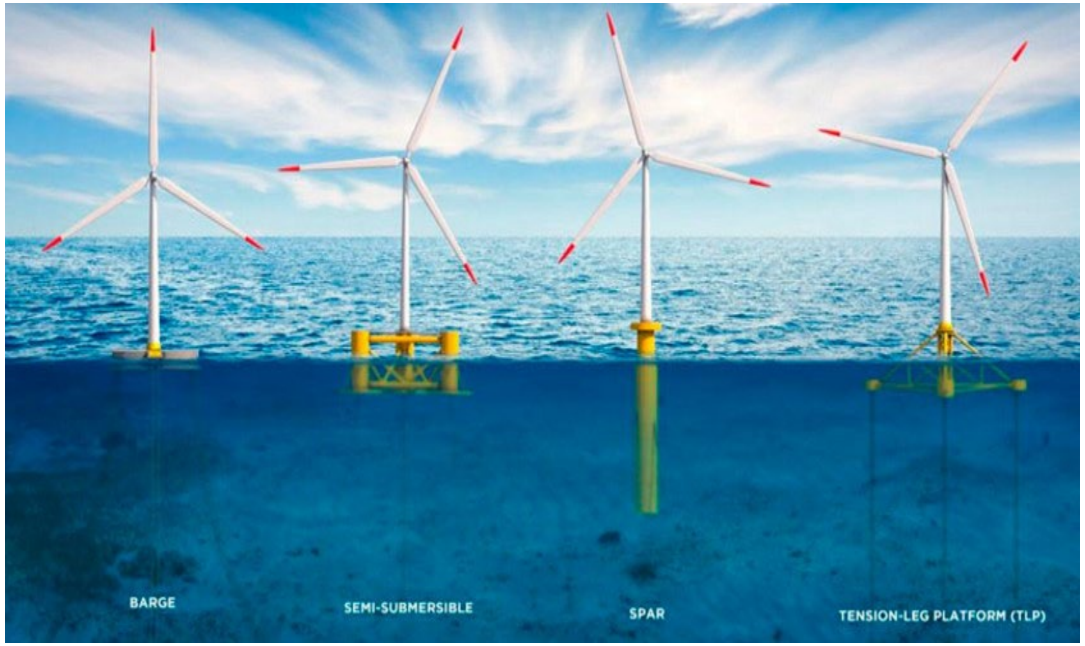
Floating wind

Floating wind turbines to be installed



AHTS requirements will be technology dependent

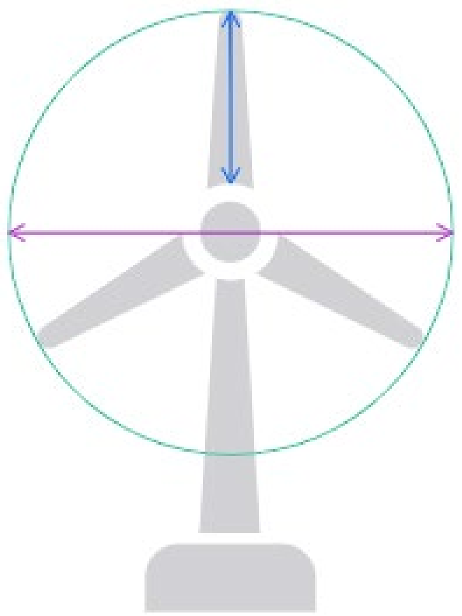
- Vessel requirements for floating wind will be dependent on the turbine size and floating technology
- Weight and anchor/mooring specifications comes in variations, and we see total displacement of the floaters ranging from 3,500 tons to 22,000 tons with similar turbine sizes



Source: Esgian Wind Analytics, SSY, GWEC

Turbine sizes set to increase

Vestas 15 MW V236-15.0 Details



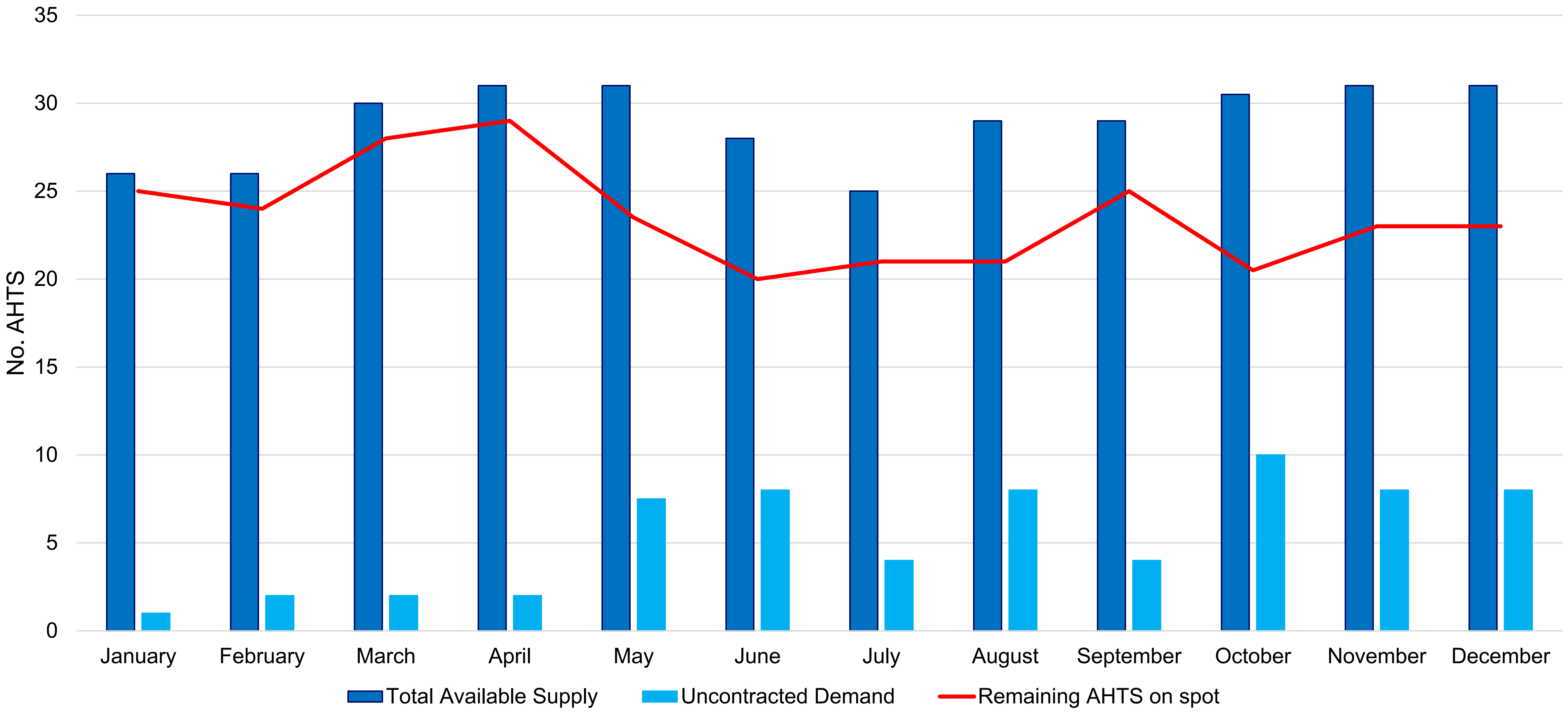
Swept area (m2)	43742
Blade length (m)	115
Rotor diameter (m)	236

2023 Turbine contracts (ex.China)

Contract Award Date	Wind Farm	Country	Turbine Supplier	Turbine Model	Turbine Nominal Power	No. Turbines
22/12/23	HKZ West VI	Netherlands	Vestas	V236-15.0	15	52
20/12/23	Norfolk Boreas	United Kingdom	Vestas	V236-15.0	15	93
20/12/23	Norfolk Vanguard	United Kingdom	Vestas	V236-15.0	15	186
20/12/23	Hornsea 3	United Kingdom	Siemens Gamesa	SG-14.0-236	14	204
13/12/23	Niigata Tainai	Japan	GE	Haliade-X 18	18	38
13/12/23	Akita Oga	Japan	Vestas	V236-15.0	15	21
13/12/23	Nagasaki Saikai	Japan	Vestas	V236-15.0	15	28
28/11/23	Aphae	South Korea	MingYang	MySE6.45-180	6.45	13
26/10/23	Dadaepo	South Korea	Shanghai Electric	SEW8.5-230	8.5	12
1/05/23	Anma	South Korea	Siemens Gamesa	SG-14.0-236	14	38
20/04/23	Baltica 2	Poland	Siemens Gamesa	SG-14.0-236	14	107
1/03/23	Wando Geumil	South Korea	Vestas	V236-15.0	15	40
28/02/23	Nordsee 2	Germany	Vestas	V236-15.0	15	29
28/02/23	Godewind	Germany	Vestas	V236-15.0	15	15
28/02/23	Nordsee 3	Germany	Vestas	V236-15.0	15	28
28/02/23	Delta Nordsee	Germany	Vestas	V236-15.0	15	32
12/01/23	Thor	Denmark	Siemens Gamesa	SG-14.0-236	14	72

Source: SSY, Esgian Wind Analytics

Supply / Demand 2024



Concluding remarks

- Norway is increasing oil production over the next years, and we expect high offshore activity levels
- The rig market in the North Sea currently seems balanced and we expect high utilization for what remains
- AHTS market has previously shown poor utilization, but we expect supply in the North Sea region to shrink and activity to increase
- Floating wind is expected to come on top of existing demand for large AHTS from 2027
- High season this year will be busy for AHTS!

Contact us

Offshore Analyst

Johan Gustafsson

E: j.gustafsson@ssyglobal.com

P: +47 91 63 19 12

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