Financing offshore wind and innovative structures

26th April 2022

Lloyds Banking Group – a Leading UK-based Financial Services Group

>300 years serving Britain's households, businesses and communities

£887 billion total assets in FY21, with £448.6bn in lending

60% of FTSE100 & FTSE250 are clients of the group

17th year in a row that LBG has won UK Best Bank of the Year at the FD Excellence Awards

£6.9 billion green / ESG financing delivered in 2021, with £5bn more committed to green initiatives

50% goal to reduce the carbon emissions that we finance by 2030

Infrastructure & Project Finance Franchise: #1 UK Infrastructure lender since 2018*

Rank	Bookrunner	Total Deal Value (£m)	Deal Count
1	Lloyds Banking Group	9,216	111
2	NatWest Group	8,487	108
3	Santander	7,164	93
4	Credit Agricole CIB	5,371	64
5	Sumitomo Mitsui Banking Corp.	5,500	61

- Infrastructure & Project Finance ("I&PF") is a dedicated Structured Finance team offering a cradle to grave service for clients on any structured financing across the Infrastructure & Energy space
- I&PF is a product and asset agnostic team of 16 originators with over **95 years combined infra experience** who have consistently maintained a market-leading presence in UK infra since 2018
- Market-leading capability and experience in structuring financing solutions for a broad range of assets in **economic, regulated, and social infrastructure** as well as **conventional and renewable energy**
- **Multi-product debt financing and hedging solutions** aimed at optimising capital whist managing risk effectively

Source: Inframation as of the 4 April 2022. Data: 1st January 2018 – 31st March 2022

Current State of the Offshore Wind Market

OSW Market Highlights

#1 UK Offshore Wind bank, with Lloyds Bank having supported c.70% of all financed offshore generation assets

>17.5 GW of total post-completion capacity financed to date

>£30 billion debt raised in the market across all project financed offshore wind transactions

Lloyds Bank's OSW Experience to Date

£4.8bn
Total credit-approved debt commitments

£2.2bn
Deployed at Financial Close

20
UK offshore windfarms financed

Map of the UK's Financed Offshore Windfarms

Lloyds Bank supported projects *Completed*

LLOYDS BANK

UK Offshore Wind Development Pipeline

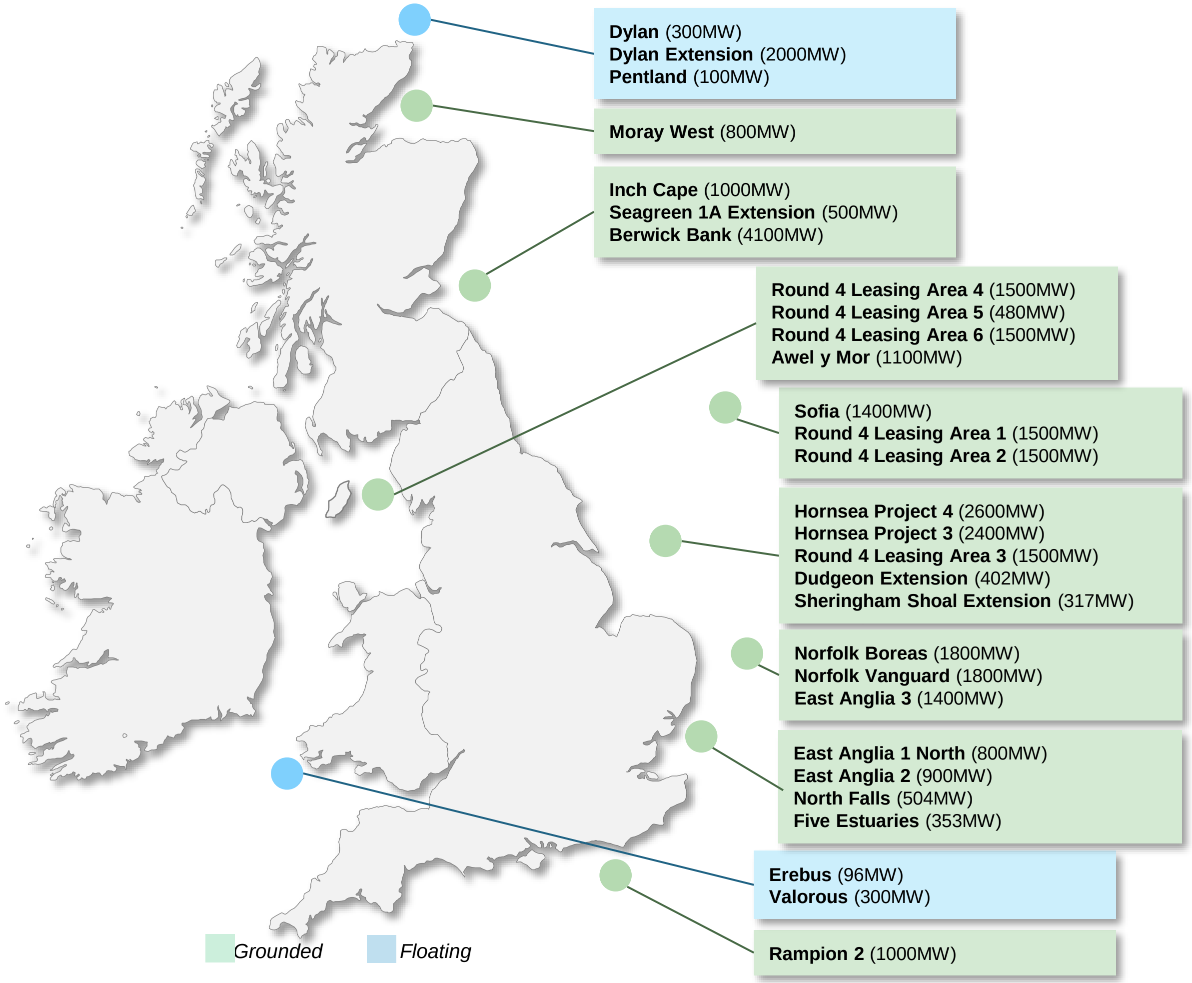
CfD Auction Round 4

- The UK's fourth CfD auction will take place in Q2/Q3 2022, aiming to contract up to **12GW, double that of round three.**
- Allocating **a separate pot for floating wind** is a significant development;

Key Developers Active in the UK

SSE, RWE, Iberdrola, Macquarie, Green Investment Group, TotalEnergies, Equinor, bp, EDF, SDIC Red Rock Power Limited, Vattenfall, ESB, edp renewables, Ørsted, Ocean Winds

UK's OSW Pipeline



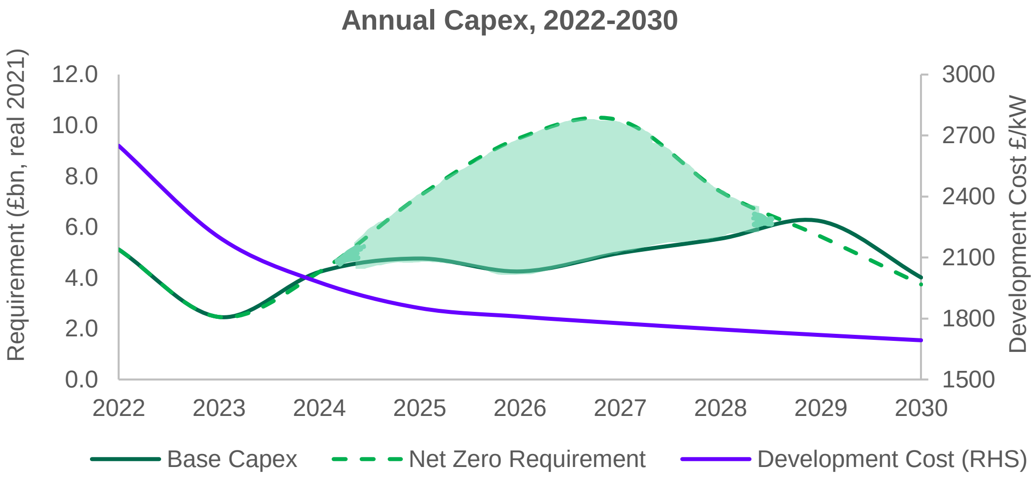
What Does the Future Looks Like?

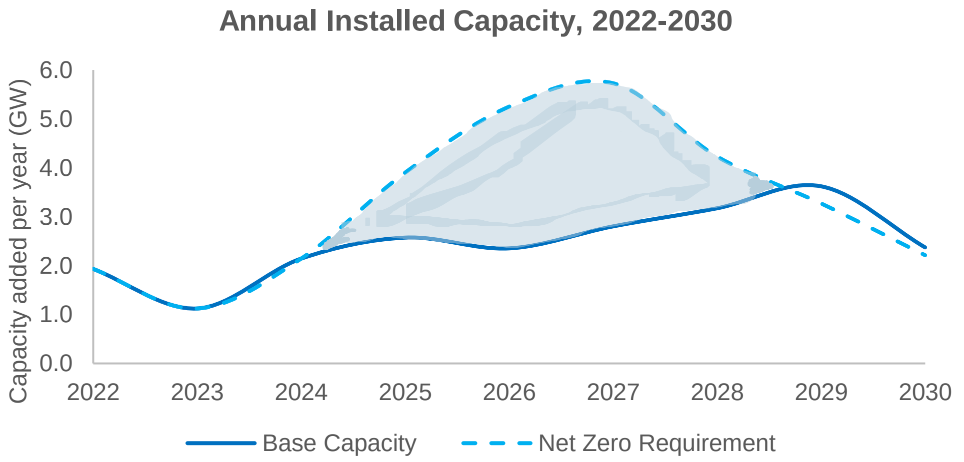
What is the Financing Ask?

- An additional **capex** requirement of **£42bn by 2030** will be required to support the OSW pipeline (according to Aurora's Base Case, in real 2021 GBP terms).
- The total **debt ask of £29bn-34bn** is imminent for the UK OSW market, assuming the gearing range of 70-80% debt.
- If the market commits to a stricter **Net Zero** strategy, the expected **capex** spend to 2030 rises to **£55bn**, with **debt** requirement of **£38bn-£44bn**.
- As wind generation technologies advance and the market continues to mature, the required **capex spend per kW** of capacity is set to **fall by 26%** by 2030.

Market Liquidity

- Such unprecedented financing ask requires a change in how the debt market approaches the sector, calling for much **more efficient use of capital**.
- As the market matures, the predictable nature of the debt service and repayment profiles makes OSW more appealing to long term **Institutional Investors**.
- **Credit Ratings Agencies** will be **crucial** to driving forward the involvement of these players, providing much needed 3rd party validation to funding structures and project risk.
- Regulators must also shape a framework for **favourable capital treatment** which incentivises private investors to deploy into the renewables market on an unprecedented scale.





** Source: Aurora Energy Research, GB Power & Renewables Market Forecast – April 2022 Update*

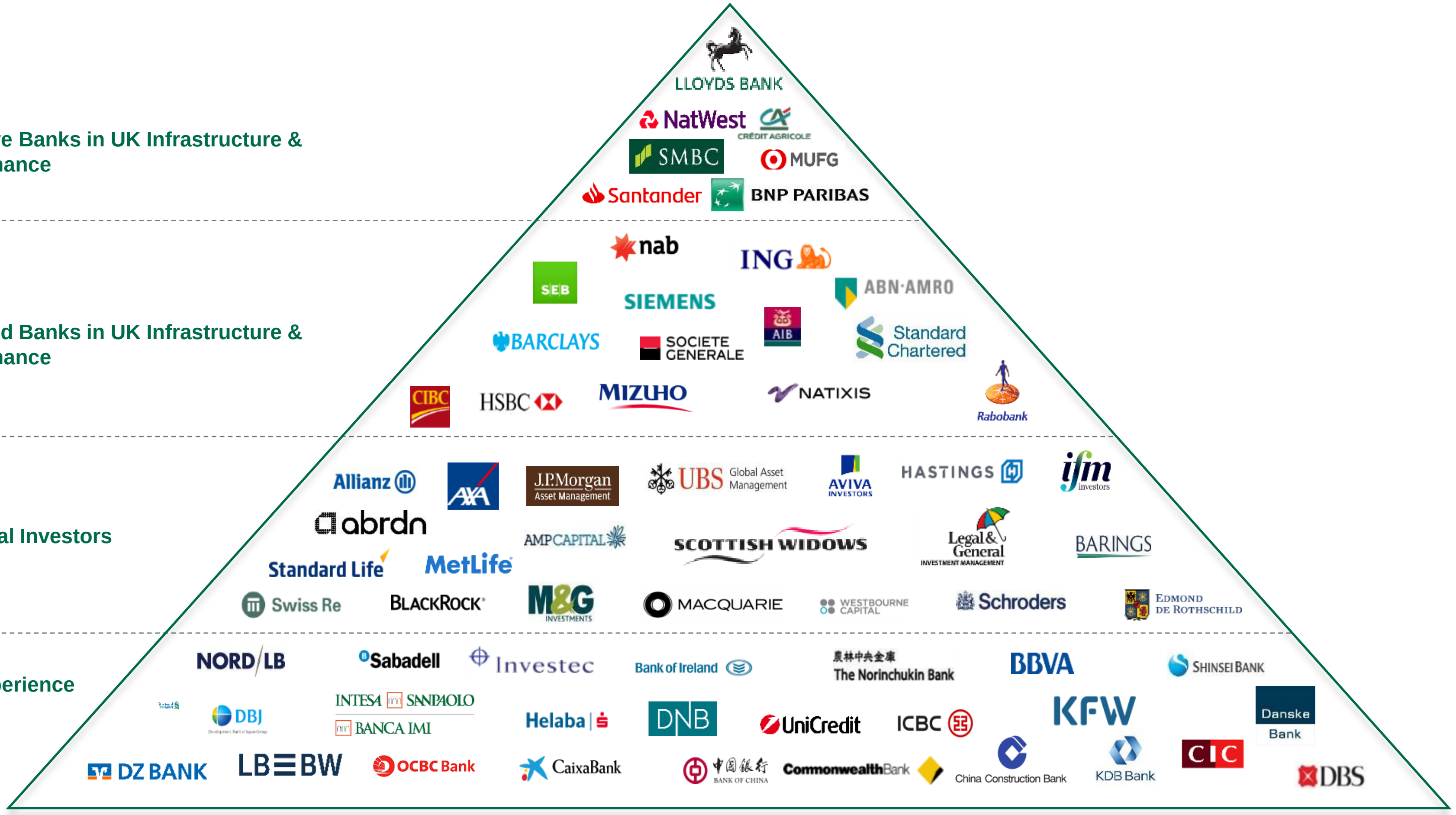
UK Offshore Wind – Liquidity Pool

Most Active Banks in UK Infrastructure & Project Finance

Established Banks in UK Infrastructure & Project Finance

Institutional Investors

Sector Experience & Appetite

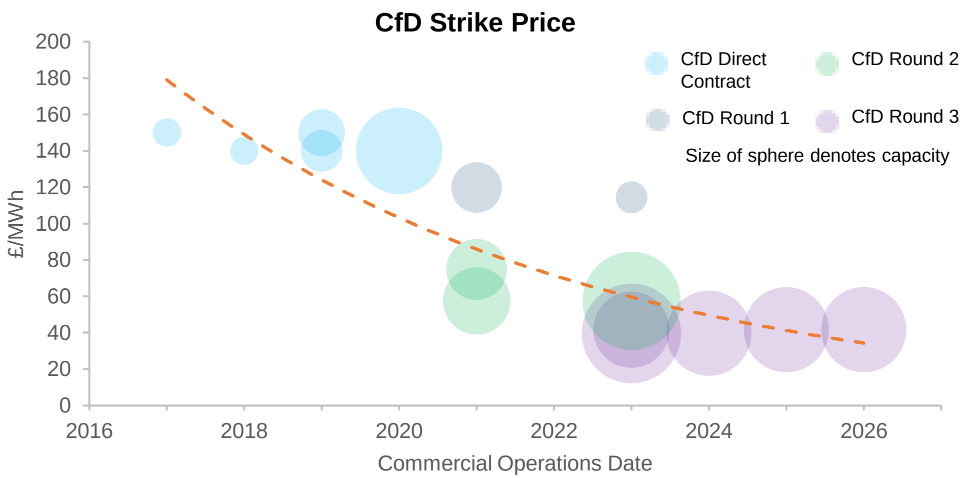


Evolution of Offshore Wind Debt Financing

1 Mature Sector

Offshore wind is now firmly a mature sector. Like solar and onshore wind before it, the lenders will need to accept **financing structure will need evolve** going forward.

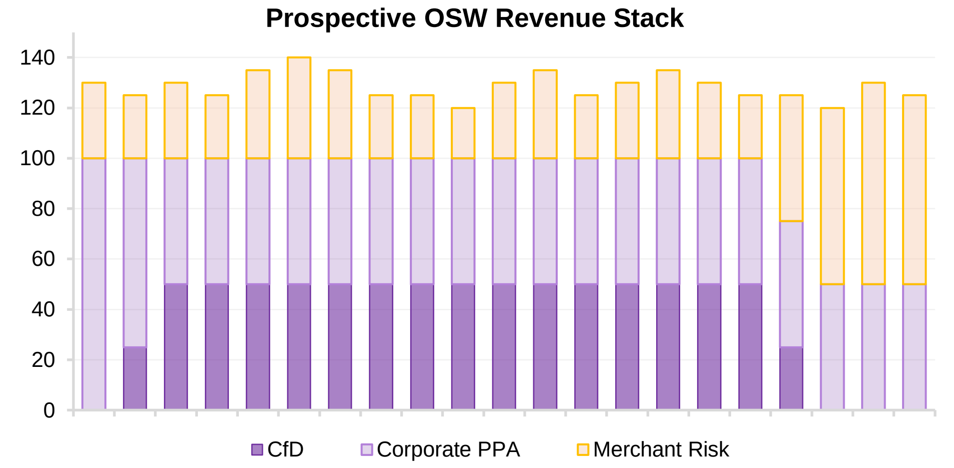
- **Tighter 'fixed cashflow' debt sizing,** combined with higher debt sizing for merchant risk
- Useful life of the assets; **valuation beyond the subsidy period**
- **Mezz debt:** more involvement of lenders with higher risk appetite and higher return requirements
- Addition of **connected storage / hydrogen** capacity;



2 Beyond Subsidies

Rapid reduction in **CfD** strike prices resulted in a transition from a **subsidy regime into a price stabilisation mechanism** and search for alternative revenue streams.

- **Fixed price Corporate PPAs** offer cashflow certainty.
- **Merchant revenues will need to be part of the revenue mix**; Lender's appetite must evolve to provide value (e.g. more debt capacity for merchant risk).
- The best example of this was **Seagreen** – which introduced the partial CfD to the UK offshore wind market in 2020.
- **Better liquidity support** to mitigate additional risks



CASE STUDY: Seagreen Wind Energy Limited

1.14GW Offshore Windfarm Project developed by SSE Renewables

Transaction & Asset Overview

- SSE is one of the UK's leading energy companies with 4GW of renewable energy capacity, as well as £9bn of regulated transmission and distribution assets. The company is involved in the entire energy chain from generation to distribution and supply with a market cap of c£13bn.
- The project took 10 years to develop at a cost of more than £3.0bn, making Seagreen the largest single investment in Scottish infrastructure. SSE and co-shareholder Total (51% ownership) together made an equity commitment of >£1.7bn to the project, which upon completion will provide green energy to 1 million homes.
- Seagreen is the first partially-subsidised offshore wind project to be financed in the UK, as the sector moves away from its dependency on government subsidies. Approximately 40% of the turbines benefit from a fixed power price guarantee from the UK Government.

STRUCTURED TERM LOAN FACILITIES

£1,400 MILLION

Mandated Lead Arranger
ECA Covered Lender
Hedge Co-ordination Bank
IRS & FX Hedge Provider

June 2020

Transaction Highlights

- Lloyds Bank provided a CGFI eligible Top Tier debt commitment of across the commercial and Export Credit Agency (ECA) covered tranches. The total debt package was c£1.4bn including term debt and ancillary facilities.
- In addition to the debt commitments, Lloyds Bank acted as an IRS and FX pre-hedging bank and the Generation Facilities IRS execution bank as well as undertaking a significant portion in hedging of the FX portfolio.
- Despite a challenging macroeconomic environment, 12 banks supported the project. The deal was oversubscribed showing the continued commitment from banks and investors in the UK renewable space.

Lloyds Bank Commitment to Energy Transition

- This is the 6th offshore wind financing that Lloyds Bank has supported in the last 24 months, and demonstrates Lloyds Bank commitment to reducing the carbon emissions we finance by more than 50 per cent by 2030 and our market leading capabilities to structure and execute deals such as this one makes a huge contribution.

> *Lloyds Bank have demonstrated their strong commitment to Seagreen and SSE by supporting us on this landmark project – the first partially subsidised offshore wind financing in the UK. We value the insight and support they have provided throughout the process, particularly within the current macro-climate, which included pre-hedging, hedge execution and providing significant balance sheet.*
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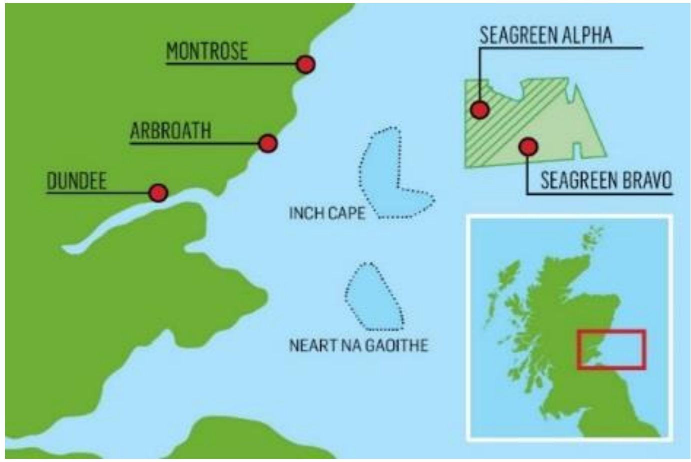
> **– Dennis Breugelmans, Finance Director at Seagreen Wind Energy Ltd**



CASE STUDY: Dogger Bank Offshore Wind Farm

3.6GW Offshore Windfarm, 50/50 Joint Venture developed by SSE Renewables and Equinor

Transaction & Asset Overview

- Dogger Bank Offshore Windfarm is being developed by SSE, one of the UK's leading energy companies with 4GW of renewable capacity as well as £9bn of regulated transmission and distribution assets, alongside its partner Equinor, a Norwegian energy giant now a market leader in global offshore wind development.
- The Dogger Bank project consists three phases, known as Dogger Bank A (DBA), Dogger Bank B (DBB) and Dogger Bank C (DBC). Financial Close for DBA and DBB was reached in November 2020, with DBC reaching Financial Close in December 2021. Italian energy group Eni acquired a 20% stake (10% from SSE and Equinor respectively) in each of the three phases post Financial Close.
- Total debt financing across the three phases stands at £8.5bn, and at 3.6GW capacity the Dogger Bank project will be the largest offshore wind development in the world once constructed. In total the Project will provide enough renewable energy for 6 million UK homes, or 5% of the UK's electricity demand.

DBA - STRUCTURED TERM LOAN FACILITIES	**DBB - STRUCTURED TERM LOAN FACILITIES**	**DBC - STRUCTURED TERM LOAN FACILITIES**
£2.6 BILLION	**£2.9 BILLION**	**£3.0 BILLION**
Mandated Lead Arranger	**Mandated Lead Arranger**	**Mandated Lead Arranger**
ECA Covered Lender	ECA Covered Lender	ECA Covered Lender
FX Hedge Provider	IRS Hedge Coordination Bank	IRS Hedge Coordination Bank
	FX Hedge Provider	FX Hedge Provider
November 2020	**November 2020**	**December 2021**

Transaction Highlights

- Lloyds Bank provided a Clean Growth Financing Initiative and Helping Britain Prosper eligible initial debt commitment of £1.6bn across commercial (£800m) and Export Credit Agency covered (£800m) tranches (final allocation of £810m) across the three phases. This is one of the largest commitments in the bank group and our largest ever commitment in the offshore wind sector.
- The final group of lenders across the three phases comprises 31 banks and three export credit agencies (ECAs), Bpifrance Assurance Export, EKN – The Swedish Export Credit Agency, and GIEK – The Norwegian Export Credit Guarantee Agency. Lloyds Bank has developed strong credentials in the ECA space and is the largest ECA lender across the Dogger Bank projects.
- LBCM acted as sole IRS Hedge Execution Bank for DBB and DBC as well as providing a share of the IRS and FX hedging for all three phases. This helps to demonstrate our broad relationship across the product suite to help the customer.

Lloyds Bank Commitment to Energy Transition

- This is the 9th offshore wind project that Lloyds Bank have supported in the last 48 months, delivering a combined £4.87bn of debt commitments from Lloyds Bank and Scottish Widows whilst playing a key role in the structuring and delivery of FX, interest rate and inflation risk management solutions to these projects.

> *"Dogger Bank Wind Farm is set to significantly contribute to a green economic recovery as we continue on our journey to net zero, by creating jobs and helping coastal communities to prosper. We were pleased to work with Lloyds Bank again (they supported Beatrice and Seagreen – the last two SSE led offshore wind developments to be debt financed) and through their roles and participation on this financing they demonstrated their experience in supporting the UK offshore wind sector."*
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> **– Oliver Cass – Finance Director, Dogger Bank Offshore Wind Farm**