

Energy, Shipping &
Offshore update

Newsletter Editorial

November 2023

This is the second issue of the Schjødt "Energy, Shipping and Offshore" newsletter, and as energy transition and emission reduction remains, one of the most vibrant and dynamic force at work in these industries, we again offer a series of articles focused on these issues.

In particular, this edition focuses on energy from offshore wind, long a staple of British renewable energy but now increasingly an area of focus in Norway, with articles on the regulatory position in Norway now embarking on offshore wind development, and on the practicalities of the construction process, including the chartering of the vessels that is such a key component. Issues in construction in particular of design and cost inflation, have been one of the key reasons for the difficulties encountered in the latest licencing round in the United Kingdom.

In addition, we have included articles on the Carbon Intensity Indicator regulations, the revisions to the European Fit for 55 package and the European Emissions Trading Scheme and the impact of each on the shipping industry, in Europe in particular. Finally the new Schjødt Denmark has contributed an article on carbon capture and storage projects in that jurisdiction.

We hope you find these articles informative and, as ever, we welcome feedback.

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If you would like to discuss any aspect of the articles in this newsletter please contact either your usual Schjødt contact or the writer direct.



The New Carbon Intensity Regulations

Introduction

It is a stated aim of the International Maritime Organisation (IMO) to achieve a 40% reduction in the carbon intensity of international shipping, compared to 2008 levels, by 2030.

As part of a package of measures intended to meet this objective, the IMO has implemented the Carbon Intensity Indicator Regulations (the "CII Regulations"), which came into force on 1 January 2023.

The CII Regulations apply to ships with a gross tonnage of over 5,000 tonnes and require shipowners to calculate and report the carbon intensity indicator of their vessels on an annual basis. All ships will then be allocated a CII rating of A-E (A being the highest ranking) based on their carbon intensity indicator, with the thresholds becoming more stringent annually in the lead up to 2030.

The CII Regulations will undoubtedly impact the operation of vessels and, given the degree of cooperation that will be required between owners and charterers to ensure compliance, will have implications for the traditional charterparty relationship.

The New Carbon Intensity Regulations

The CII Regulations

Since 1 January 2023, all ships over 5,000 tonnes have been required to monitor their carbon intensity and to calculate their Carbon Intensity Indicator. The Carbon Intensity Indicator is a measure of operational efficiency and is expressed in grams of CO₂ emitted per cargo carrying capacity and nautical miles travelled.

The first reporting is due at the end of 2023 and from 2024, vessels will receive a CII rating based on their carbon intensity for the previous year. Ships ranked E in any given year, or D in three consecutive years, will be required to submit and implement a corrective action plan showing how the ship will improve its CII ranking to C or above.

It remains unclear what timescale will be applicable for the implementation of a corrective action plan, or what sanctions will be imposed on ships that fail to implement a satisfactory corrective action plan, but it seems likely that such ships will find their trading capabilities restricted.

Industry reaction to the CII Regulations

The CII Regulations have come in for criticism from key players in the shipping industry, with leading shipowners expressing the view that the CII Regulations are not the answer to reducing carbon intensity and that the CII calculation can be gamed in order to improve a ship's CII rating.

It has been argued that the formula:

- Rewards inefficient trading, in the sense that ships burn less fuel and produce fewer emissions on ballast voyages than they do on laden voyages;
- Penalises time spent in port;
- Penalises short voyages, since the CII rating is heavily influenced by distance travelled; and
- Punishes transshipment vessels, which consume fuel but cover very little distance.

This gives rise to a concern that shipowners faced with a need to improve their CII rating have an incentive to trade inefficiently, for example by limiting the amount of cargo they are prepared to load, performing increased ballast voyages, avoiding short voyages in favour of longer distances and reducing time spent idling at anchorage by steaming round in circles, thus consuming more fuel but covering a greater distance.

It remains to be seen to what extent these concerns will prove well-founded and it should be noted that the IMO intends to review the CII Regulations in 2026. Until then, shipowners and

charterers are left to grapple with the issue of ensuring compliance.

By the nature of the CII Regulations, it is clear that compliance will require close cooperation between owners and charterers. While responsibility for compliance ultimately lies with the owners, charterers plainly have a large degree of influence over a vessel's carbon intensity by the employment orders issued throughout the duration of a charterparty.

There is a clear tension between on the one hand owners' need to limit carbon intensity and ensure compliance with the CII Regulations and, on the other hand, the charterers' commercial imperative to trade the vessel in the most profitable way possible.

Traditionally, in a time charter context, charterers have broad control over the vessel's employment and are entitled to give orders, including as to service speed, with which the owners must comply so long as the orders are within the limits of the charterparty. However, this is incompatible with the cooperative approach that is required to ensure compliance with the CII Regulations.

BIMCO has sought to address this by issuing its CII Operations Clause (the "BIMCO Clause").

The BIMCO Clause

The purpose of the BIMCO clause is to provide the necessary building blocks for the parties to operate ships in accordance with the CII Regulations.

It seeks to promote collaboration, transparency and flexibility between the parties, recognising that reducing carbon intensity in accordance with the CII Regulations is a shared responsibility.

The BIMCO Clause then sets out the parties' substantive obligations and notably allocates responsibility for adherence to the CII Regulations to the charterers, who are required to:

- Operate and employ the vessel in a manner consistent with the CII Regulations, which may require alternative or adjusted voyage or employment orders, instructions or sailing directions to be issued; and
- Not permit the Charterparty Attained CII (i.e. the actual CII measured from the start of the relevant calendar year, or the date of delivery if the charterparty begins during a calendar year) to exceed the Agreed CII by the end of the calendar year or date of redelivery, if earlier.

The New Carbon Intensity Regulations

The Agreed CII is a matter for negotiation between the parties at the time of entering the charterparty and must be stated in sub-clause (d). If the parties do not agree, then the Agreed CII will be C by default.

Owners' primary obligation is to exercise due diligence to ensure the vessel is operated in a manner which minimises fuel consumption. This includes:

- (i) Maintaining the vessel in accordance with the charterparty and the CII Regulations, reporting any deficiencies to the charterers;
- (ii) When passage planning, adjusting the vessel's trim and operating the vessel's main and auxiliary engines;
- (iii) Making optimal use of the vessel's navigation equipment and any additional aids provided by the charterers, such as weather routing, voyage optimisation and performance monitoring systems;
- (iv) Unless otherwise instructed by the charterers, proceeding by the most fuel-efficient route, subject to the safety of the vessel, crew or operation of equipment;
- (v) Monitor and calculate the actual consumption of the vessel on a daily basis and provide the details to the charterers; and
- (vi) Comply with the SEEMP.

In essence, while the owners are responsible for maintaining a CII compliant ship, the primary responsibility for ensuring compliance with the CII Regulations is on the charterers, who face being required to make adjustments to their trading patterns to ensure the vessel does not exceed its Agreed CII.

Sub-clause (g) sets out a three-stage process for ensuring compliance throughout the duration of the charterparty, as follows:

1. Owners are required to give charterers advance warning if, at any time, the trajectory of the Attained CII deviates from the Agreed CII.
2. If, despite that warning, the Attained CII continues to deviate from the Agreed CII and there is a reasonable likelihood that charterers may fail to meet their obligations to employ the vessel in a way which is consistent with the CII Regulations and which ensures the Attained CII does not exceed the Agreed CII, then Owners must request the charterers to provide a written plan, within two working days of the request detailing the proposed operation of the vessel for the next voyage.
3. If Owners can reasonably show that this written plan will not ensure compliance, then they are required to confirm this to charterers within two working days of receipt of the written plan. The parties are then required to cooperate and work together in good faith to agree, within two working days, an adjusted written plan for the next voyage or voyages to bring the Attained CII in line with the Agreed CII.

Until an adjusted written plan has been agreed, the clause provides that owners are entitled not to follow charterers' orders without being in breach of the charterparty and with the vessel remaining on hire throughout.

Owners are also entitled to reduce speed or, if owners consider a reduction in speed is likely to be insufficient, to require charterers to provide all requisite instructions to the vessel in order to bring the Attained CII into line with the Agreed CII for the relevant calendar year (or the relevant charter period if the charterparty ends during the calendar year).



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EU ETS – uncertainty ahead for shipping

Introduction

Established in 2005, the EU Emissions Trading Scheme (EU ETS) is a carbon market that operates on a 'cap and trade' basis. Its aim is to fight climate change by reducing greenhouse gas emissions (GHGs).

On 5 June 2023, amendments to the EU Emissions Trading Directive (ETS Directive) came into force, which extended EU ETS to the shipping industry as of 1 January 2024.

Under the scheme, Member States allocate or sell a capped number of permits which allow for discharge of a specified quantity of GHGs over a set period. This cap will reduce over time to lower emissions, although allowances may be traded between companies to reflect their individual requirements.

EU ETS – uncertainty ahead for shipping

Scope

The scheme is targeted at 'Shipping Companies' which are liable to pay allowances in respect of emissions released by their ships. DIRECTIVE 2003/87/EC Article 3(w), defines a 'Shipping Company' as the shipowner or any other organisation or person (such as the manager or the bareboat charterer) that has assumed the responsibility for the operation of the ship. By default, the Shipping Company will be the registered owner of the vessel. Pursuant to the Commission Regulation (EU) 2023/2599, published on 23 November 2023, in order for a shipowner to pass the responsibility for EU ETS compliance on to a manager or bareboat charterer, express wording in the management contract of bareboat charter will be required

EU ETS will apply to:

- Ships above 5,000 gross tonnage (*excluding warships, naval auxiliaries, fish-catching or fish-processing ships, wooden ships of a primitive build, ships not propelled by mechanical means, or government ships used for non-commercial purposes)
- Performing voyages arriving at or departing from the EU or between EU ports of call;
- GHGs released into the atmosphere by those ships on those voyages, and produced by those ships whilst in EU ports, being, pursuant to Annex I of the revised ETS Directive, carbon dioxide emissions in 2024 and 2025 and, from and including 1 January 2026, carbon dioxide, methane and nitrous oxide.

Under the scheme, it will become mandatory for Shipping Companies performing those voyages to surrender allowances covering:

- 1) 50% of the verified emissions for voyages which enter or depart the EU;
- 2) 100% of the verified emissions for voyages between ports in the EU and produced by ships at berth in a port within the EU.

HOWEVER, the revised ETS Directive provides for a 'phase-in' period, during which a Shipping Company shall be liable to surrender reduced allowances for emissions as follows:

- 1) 40% of verified emissions reported for 2024 (i.e. 20% of verified emissions for voyages into or out of the EU);
- 2) 70% of verified emissions reported for 2025 (i.e. 35% of verified emissions for voyages into or out of the EU);

Allowances will be due in their entirety for verified

emissions reported for 2026 and this will include allowances for verified emissions of methane and nitrous oxide emission. Compliance will be assessed on a company-wide (rather than per ship) basis and must be ensured across the fleet.

Penalties

The EU wide allowances for shipping will be 79 million, but will reduce year on year by 4.2%. Any entity can hold allowances, and these are to be recorded in the Union Registry. Allowances will be valid indefinitely but cannot be surrendered against emissions produced in earlier (non-maritime) phases of the ETS. In the case of non-compliance, Shipping Companies will be at risk of the following penalties.

- 1) Publication of the names of Shipping Companies that are in breach of their obligations to surrender allowances.
- 2) Emissions penalties of EUR 100 for each tonne of carbon dioxide emitted beyond the allowances surrendered. The Shipping Company must also surrender allowances in respect of those excess emissions when submitting allowances for the following year. The penalty of EUR 100 is index-linked and subject to increases.
- 3) Without prejudice to the rules applicable where a ship is in distress, where a Shipping Company has failed to comply with the obligation to surrender allowances for two or more consecutive years, the competent authority of the Member State of the port of entry may issue an expulsion order to that Shipping Company, and all Member States except the flag state (if a Member State) shall refuse entry of the ships of that Shipping Company to any of their ports until the Shipping Company fulfils its obligations.
- 4) Where a ship of the Shipping Company enters or is found within the flag state (if a Member State), the Member State shall detain the ship until the Shipping Company fulfils its obligations. The Member State shall inform the European Commission, EMSA and other Member States of the detention order and those States shall take the same measures as following the issue of an expulsion order, i.e. shall deny the ships of the Shipping Company entry to their ports

Transfer of Responsibility for Costs

The 'polluter pays' principle, which underpins EU environmental law, would arguably point to charterers (the party providing the bunkers and dictating the commercial operation of the vessel) as the party who ought to be responsible for ETS allowances.

EU ETS – uncertainty ahead for shipping

The EU have, however, made clear that allowances, in the first instance, fall to be paid by owners and as things stand, it is for the parties to assign responsibility for ETS compliance costs in their contracts to the entity "ultimately responsible for the decisions affecting the CO₂ emissions of the ship". (Special Rapporteur's report of 24 January 2022)

This has resulted in the drafting of new charterparty clauses, such as the BIMCO's ETS Emissions Trading Scheme Allowances Clause for Time Charterparties which encourages both parties to the charterparty to cooperate and collaborate as to the broad EU scheme and places ultimate responsibility for fuel and emissions trading allowances on charterers.

The BIMCO clause obliges charterers to transfer the requisite amount of emissions allowances to owners each month, with that amount being based on verified emission data, provided by owners. If charterers fail to timely transfer the requisite allowances, owners would have the right to suspend the charter, with the vessel remaining on hire. Conversely, charterers' obligation does

not apply during periods of off-hire, and they will have a right to offset, or demand return of any allowances submitted for such periods.

Challenges

Whilst the insertion of the BIMCO clause (or similar bespoke wording) will make clear who bears responsibility for ETS allowances, persuading charterers to agree it, or amend existing charterparties, has proven challenging for many owners. Those owners now face uncertainty.

We would encourage parties to incorporate specific EU ETS clauses into new charters which clearly assign responsibility for those costs and undertake close analysis of existing contracts to ascertain where cost responsibilities might fall.

Our London shipping team have advised both owners and charterers on the implications of the EU ETS scheme and are well placed to assist with any enquiries going forward.



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Shipping and the latest piece in the Fit for 55 puzzle - CBAM



Shipping and the latest piece in the Fit for 55 puzzle - CBAM

To achieve the target of reducing EU net greenhouse gas ("GHG") emissions by at least 55% by 2030, compared to 1990 levels, the EU has introduced a set of proposals to revise and update EU legislation ("Fit for 55" package). As a carbon-intensive industry, the shipping industry will certainly be affected by these initiatives. Although maritime transport is one of the most energy-efficient modes of transport, it represents a significant mode of transport of goods to and within the EU and accounted for 14% of the total transport emissions in the EU in 2019.

As a consequence, the EU is increasingly targeting emissions from the shipping industry and has extended some of its previous initiatives to include maritime transport and proposed specific regulations for the shipping industry. As covered in previous newsletters, which can be read here, the inclusion of maritime transport in the emission trading system (ETS) and FuelEU Maritime is of particular importance. The ETS and the FuelEU Maritime are closely interlinked with the other parts of the "Fit for 55" package, which needs to be assessed holistically. In this article, we give a brief overview of the key developments of the Fit for 55 package and its overall impact on the shipping industry.

The final piece in the process of incorporating maritime emissions into the EU ETS regime was put in place when the European Parliament voted in favor of the proposed revision of the EU ETS on 18 April 2023, a proposal which was adopted by the European Council on April 25, 2023. The proposed revision was formally adopted as EU law on 16 May 2023 through the amendments to the EU ETS Directive (2003/87/EC) and the Monitoring, Reporting, and Verification (MRV) Regulation (2015/757). The effect of this amendment is that the ETS trading system will include maritime emissions from 2024.

One interesting facet of the latest revision of the EU ETS is the abandonment of the proposal for a separate ocean fund. Instead, the scope of the EU Innovation Fund will be extended to include investments within the maritime sector, with a particular focus on low- and zero-carbon

technologies. The inclusion of the maritime industry in the EU ETS means that a portion of the revenue from the auctioning of allowances will be dedicated to promoting investments in decarbonizing maritime transport and facilitating the green transition. This includes investments in the energy efficiency of ships, ports, and short-sea shipping, electrification of the sector, sustainable alternative fuels, and zero-emission propulsion technologies. It is understood that 2 Billion EUR of the revenues of the Innovation fund will be earmarked for the maritime sector. Another interesting, and somewhat surprising, development regarding the implementation of maritime emissions into the ETS regime is that the EU Commission, on 22 November 2023, adopted a new implementing regulation. Under the latest implementing regulation, it was clarified that shipowners will be the entity responsible for the EU ETS obligations. The Commission considered that, in the specific context of the EU ETS, the obligations to comply with the ETS obligations must be assigned to the entity that is more apt to take the necessary measures in this respect. Thus, the default option was determined to be that shipowners will be responsible for ETS obligations, unless another entity, such as the technical manager or bareboat charterer, has been duly mandated by the shipowner to comply with the ETS obligations.

With regards to the FuelEU Maritime initiative, the European Council adopted the regulation on 25 July 2023. In addition to requiring a gradual reduction of greenhouse GHG intensity of energy used on board, the proposal requires container and passenger ships to utilize on-shore power supply ("OPS") while at berth in EU ports, unless they employ zero-emissions technology. This latter requirement must be seen in conjunction with the Alternative Fuels Infrastructure Regulation (AFIR) and the Trans-European Transport Network (TEN-T). The AFIR Regulation 2023/1804 was published in the EU's official journal on 22 September 2023 and entered into force on 12 October 2023. The regulation aims to ensure the existence of a sufficient infrastructure network for recharging or refueling vehicles or ships with alternative fuels.



Shipping and the latest piece in the Fit for 55 puzzle - CBAM

By 2030, Main EU ports (TEN-T ports) are required to offer shore-side electricity to seagoing container ships and seagoing passenger ships over 5.000 GT.

Significant investments in low-emission technology for both ships and ports are essential to achieve the desired outcomes of FuelEU Maritime and AFIR. By specifically allocating funds to the maritime sector and projects related to electrification of the industry and ports through the Innovation Fund, the EU hopes to facilitate this transition, demonstrating the close interconnection of various EU initiatives. However, the Innovation Fund primarily aims to support projects with the goal of a broad rollout, i.e projects relating to bio-fuels or CCS; therefore, it remains uncertain whether individual shipowners will benefit directly from the establishment of the fund. Nevertheless, making such green technology available through investments will streamline the shift towards low- and zero-emission vessels, reinforcing the incentives provided by the EU ETS and FuelEU Maritime to reduce emissions.

The proposed regulations in FuelEU Maritime and EU ETS must also be seen in conjunction with the proposal to revise the Energy Taxation Directive ("ETD"). Currently, the directive allows member states to impose taxes on energy products but provides exemptions for fuels used in maritime transport and international commercial aviation. The proposed revision suggests that fuels used in maritime transport should be subject to taxation and introduces a progressive tax structure, with higher taxes imposed on the most polluting fuels such as coal, oil, and gas. Thus, the proposal aligns with the suite of measures in the "Fit for 55" package designed to incentivize a transition to cleaner energy sources.

In addition to approving the inclusion of greenhouse gas emissions (GHG) from maritime transport in the ETS, the EU Parliament on April 18 2023 approved the proposed carbon border adjustment mechanism (CBAM). The CBAM entered into application in its transitional phase

on 1 October 2023, with the first reporting period for importers ending 31 January 2024. The CBAM regulation, as described [in further detail in this special newsletter on CBAM](#) from our renewable energy practice group, is intended to prevent carbon-leakage by ensuring that goods otherwise covered by the ETS are not imported from third countries that are not subject to the cap and trade system or equivalent carbon quota system. The CBAM requires importers of these products within the CBAM scope to declare the quantity of goods imported into the EU in the preceding year and their embedded GHG emissions each year while at the same time surrendering the corresponding number of CBAM certificates. In this way, CBAM complements the ETS and protects the European industry against outsourcing to third-countries with more lenient carbon-pricing schemes.

The CBAM, however, only applies to the import of certain goods and does not directly cover maritime transport. For the shipping industry it is worth noting that a ship operator will not be considered as an importer under the CBAM regulation. As the proposal stands now, the relevant parties to the CBAM regulation and reporting requirements will be the importer and not the transporter of the relevant goods. As a consequence, shipping parties will therefore not necessarily be obliged to take any direct actions due to the CBAM under the current proposal.

However, it is clear that CBAM will be significant for the maritime industry in two respects. Firstly, the measure could affect the commodity prices for goods that the shipping industry relies on. For example, aluminum and steel are included in the proposal, which could lead to increased costs in shipbuilding. Secondly, the proposal could impact trade in and out of Europe. A report from the EU Commission shows that the import of iron and steel could decrease by 11% as a result of CBAM, and the import of fertilizer by as much as 24%. The flow of trade in and out of the EU by maritime transportation could therefore be significantly affected resulting in less demand for vessel capacity in the EU region, and in particular for certain segments covered by the CBAM.

Shipping and the latest piece in the Fit for 55 puzzle - CBAM

The CBAM regulation illustrates the holistic approach the EU has adopted to reduce emissions. The Union is attempting to influence emissions both directly within Europe and in third countries. If the inclusion of maritime transport in the EU ETS reveals opportunities for circumvention, it is likely that regulations will be tightened and new initiatives introduced to prevent carbon-leakage. In the CBAM proposal accepted by the Parliament and the Commission it is stated that by the end of the transitional phase, the Commission shall present a report assessing the possibilities of expanding the scope of the CBAM to also cover the embedded emissions in the transport of the goods covered by CBAM. Consequently, this will include emissions from maritime transport and have a direct impact on shipping companies.

As we have observed, the implementation of the

CBAM will at the current stage indirectly affect the shipping industry. However, the developments in the "Fit for 55" package indicate that the shipping industry must remain attentive and aware of potential measures that will follow as part of the EU's ambitious plan to reduce emissions. It is reasonable to assume that the EU will closely monitor the progress of the proposed measures pertaining to the shipping industry and international development regarding the topic. Should the measures taken not have the desired effect, it is to be expected that the scope will be expanded. In conjunction with the proposed EU ETS and FuelEU Maritime regulations, it is therefore beyond doubt that the "Fit for 55" package will have a significant impact on the maritime sector. These measures encompass various aspects of the industry, and their cumulative effect must be evaluated comprehensively.



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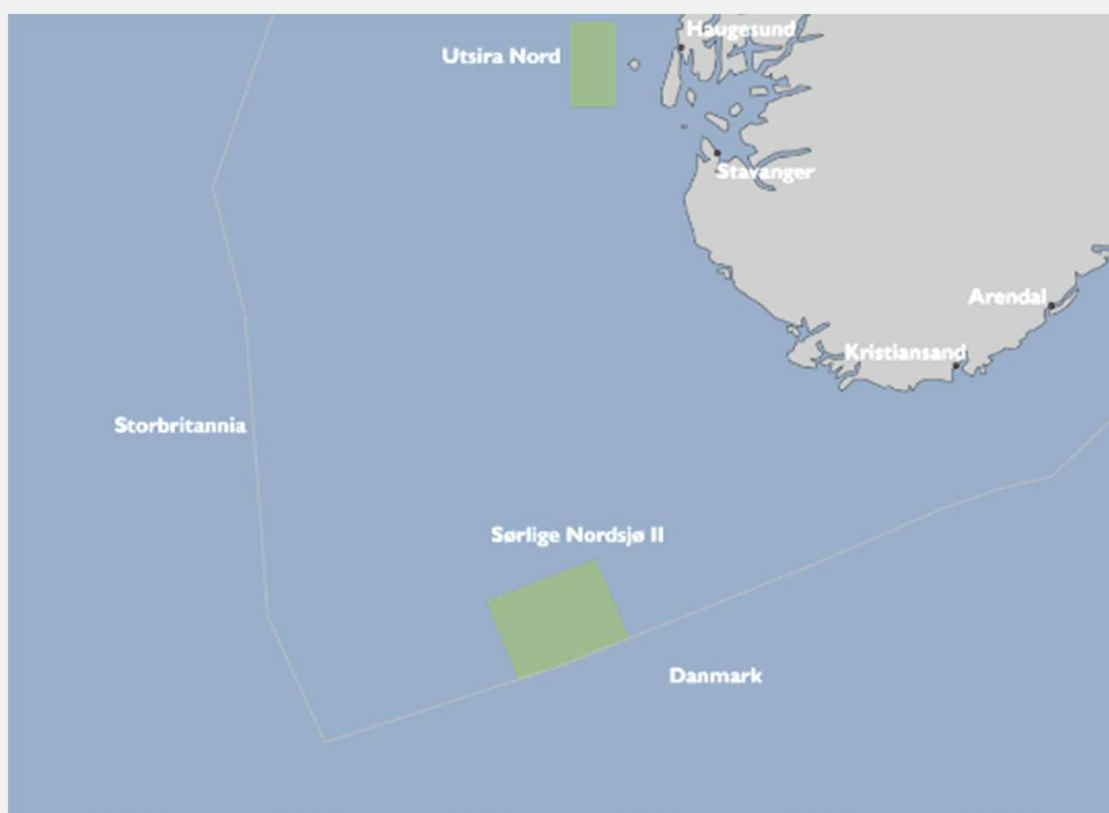


Offshore Wind in Norway



Offshore wind in Norway

Norway is in the early stages of developing offshore wind in the Norwegian Continental Shelf (NCS). As of today, two areas are open for development; Utsira Nord with a capacity of 1 500 MW and Sørlige Nordsjø II with a capacity of 3 000 MW (see map below).



An offshore wind park with a capacity of 1 500 MW has a yearly production at approximately 7 TWh. By comparison, the total energy production in Norway in 2022 was about 146 TWh.

The Government's goal is for the first offshore wind project to be in operation before 2030, and the ambition is to allocate areas for 30 GW of offshore wind production in Norway within 2040. The Norwegian power grid is not able to receive such amount of power, so a significant quantity will be exported. However, the Government has decided that the first phase of Sørlige Nordsjø II with its capacity of 1 500 MW will be for domestic consumption.



Offshore wind in Norway

In late March 2023, the Ministry of Petroleum and Energy (MPE) announced the first competition for a project area in Sørilige Nordsjø II and Utsira Nord for offshore renewable energy production. Originally the application deadlines were set to 4 August 2023 for Sørilige Nordsjø II and 1 September 2023 for Utsira Nord. Mainly due to the process of notifying the state aid to the EFTA Surveillance Authority (ESA), the MPE postponed the application deadlines twice. The final application deadline for Sørilige Nordsjø II was 15 November 2023, while for Utsira Nord it is currently no fixed application deadline, but the aim is to have a new deadline during Q1 2024.

Legal Framework - Offshore Energy Act

The legal basis for the offshore wind activities at the NCS, is the Offshore Energy Act . The Offshore Energy Act applies to Norway's territorial sea outside the baselines and to the continental shelf. Within the baselines, the Energy Act applies.

The main principle is that the Norwegian state has the right to utilize offshore energy resources, and a license is required to conduct power generation, conversion and transmission in areas covered by the Act. The formal authority under the Offshore Energy Act lies with the MPE. As a starting point, licenses can only be awarded after the authorities have carried out a strategic environmental assessment and decided to open specific areas for license applications.

The MPE finalized the Offshore Energy Regulations in 2020 which entered into force on 1 January 2021. The Regulations describe the licensing process in more detail, and in short the licensing process to be applicable for Sørilige Nordsjø II can be summarized as follows:



A project area and a license can be awarded to a company established in Norway with sufficient technical competence and financial capacity to plan, develop, construct, own and operate an offshore wind farm at the NCS. The MPE has emphasized that companies that submit an offer and application as part of a consortium with another company(ies), must comply with the provision in the Norwegian Competition Act section 10 regarding prohibition of illegal cooperation. The MPE states that a cooperation between competitors may be allowed if it can be documented that there are efficiency gains that offset the cooperation's restrictiveness on competition.

Contracting for vessels to be used in the offshore wind industry

Sørlige Nordsjø II – Auction Process

For Sørlige Nordsjø II, there is an auction process with prequalification, and the deadline for the prequalification was 15 November 2023. The following consortiums and companies did apply:

- Aker Offshore Wind, BP og Statkraft
- Equinor og RWE
- Hydroelectric Corporation
- Mingyang Smart Energy
- Norseman Wind
- Parkwind og Ingka
- Shell, Lyse og Eviny

Any state aid model for Sørlige Nordsjø II will be awarded through a two-way contract for difference (CfD) with a maximum aid. In the draft CfD issued by the MPE, the maximum is set to NOK 23 billion. The state aid model has been notified to the EFTA Surveillance Authority (ESA), but ESA has not yet finally approved the model.

In order to be able to participate in the competition, the applicants must document that certain minimum requirements are met. These minimums requirements relate to sustainability and positive ripple effects of the proposed projects. The MPE will carry out a prequalification process of the applicants meeting the minimum requirements as follows; a) applicants must fulfil the prequalification criterion execution Capability in order to be prequalified; b) if more than six applicants fulfil the prequalification criterion execution capability, the MPE will subsequently rank the applicants; and c) after ranking the applicants, the MPE will, based on the ranking, select a minimum of six and a maximum of eight applicants that are deemed as best suited to participate in the auction.

The prequalification criteria execution capability, consists of a number of different sub-criteria. This includes financial strength, funding plan, relevant experience, project concept, quality systems for HSE and project plan. It should be noted that the MPE requires that the applicants must have one reference project which includes construction of a large-scale offshore wind farm with a capacity of more than 300 MW.

Under each sub-criteria, a score from 1-10 will be given, based on a discretionary evaluation (with the exception of the sub-criteria Project owner's integrity and Health, safety and environment, which will be assessed as fulfilled/not fulfilled). The best applicant for each of the sub-criteria will get the score 10.

The applicants prequalified and selected by the

MPE will then be offered to participate in the auction for being awarded a project area. Applicants that are to participate in the auction must provide a bank guarantee in favour of the government in the amount of MNOK 400 as a financial security for fulfilment of the liquidated damages which will apply if the winner of the auction does not enter into the contract for difference.

The applicant submitting the lowest bid price (NOK øre/kWh) will win the auction. The winner shall sign the contract for difference and will be granted a time-limited exclusive right to the project area, to submit a notification containing a proposal for a project-specific investigation programme and to apply for a licence.

Utsira Nord – Qualitative Criteria

For Utsira Nord, the MPE will award a project area based on qualitative criteria. While Sørlige Nordsjø II will be bottom fixed windmills, Utsira Nord will be based on floating windmills. As this technology is less developed, the MPE has decided to have a process based on qualitative criteria instead of a monetary auction process in order to facilitate for innovation and technology development.

Utsira Nord may be divided into three areas of 500 MW and the proposed award model is based on a two-step process for area award and state support award: 1) award of area based on qualitative criteria, and 2) competition on state support as part of the license process.

The qualitative criteria are similar to the prequalification criteria for Sørlige Nordsjø II but with five main criteria; cost level 2030 (30%), innovation and technological development (20%), execution capability (30%), sustainability (10%) and positive local benefits (10%).

The three applicants who receive the highest overall score in the qualitative competition will each be awarded their own project area. Within six weeks of the decision to award a project area, the undertaking must submit a notification with a proposal for a project-specific study programme. The project is to be further developed and matured within the framework of, and in accordance with, the description given in the application, which forms the basis for the awarding of the project area.

Projects that have been further developed and matured will be permitted to compete for state aid as part of the licensing process. Detailed rules for the competition will be set out at a later date and must be approved by ESA.

Offshore Wind
in Norway

Summary

The offshore wind industry generally favours the auction process for Sørlige Nordsjø II. However, the increased costs levels within the offshore wind industry have increased the financial risk and it is yet to be seen how many of the seven applicants will be actually willing to participate in the auction, as the CfD will contain a maximum level for the state aid. There are also still many outstanding and unsolved issues, e.g. grid

connection, which necessitate many assumptions for a monetary bid in an auction.

Utsira Nord with floating windmills is based on a more immature technology. Thus, it appears to be a common view that a pure monetary auction (with a pre-qualification process) is not optimal for Utsira Nord, and that the presented model based on qualitative criteria is a better alternative.

However, the level of State aid is not clarified, so there are still uncertainties.



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Offshore Wind Construction Contracts

Offshore Wind Construction Contracts

The construction of any offshore wind park is a complex technical undertaking. The Hornsea 1 wind farm off the coast of Yorkshire for example, covers an area of 407 square kilometres and contains 174 wind turbines, each of which is 190 metres tall, larger than the well-known Gherkin building in London.

Electricity is produced by the wind turning giant rotor blades on the wind turbines. These rotor blades turn a shaft containing magnets inside loops of copper wire producing electricity. The array cables connect each turbine to the others and to an offshore substation which converts the electricity to a higher voltage so that less is lost in transmission to shore. This transmission is effected through subsea and underground cables connecting to an onshore substation and ultimately to the national grid.

The large pieces of equipment will be constructed in specialist fabrication yards in the Far East or Europe and transported to the wind farm by heavy lift vessels. Construction offshore starts with the driving of piles as anchor points to support the foundations of the wind turbines which are either jackets or monopiles. Transition pieces are then installed on the foundations by specialist installation vessels. The transition pieces join the jacket or pile with the turbine tower of the wind turbine, and their function is to ensure its verticality and to house its auxiliary equipment.

The turbines and their associated platforms are also built on land, either in shipyards or camps and launched at sea using launching ramps, semi-submersible barges, dry docks or floating docks. Once launched in port, the wind turbine is assembled and towed offshore where the moorings and cables are connected.

The offshore substation, which will often weigh several thousands of tonnes, will also be constructed onshore and towed to the wind farm for installation.

The contracts that underpin a project of this nature will be a combination of marine contracts covering in particular the transportation of the equipment to the site of the wind farm and



(sometimes) the charter of the specialist installation vessels and construction contracts covering the construction and installation of the equipment. In this respect, the industry strongly resembles the offshore oil and gas industry. The terms of the contracts for construction and installation are however quite different.

In the wind industry the contract terms will typically be on EPC construction terms often using the FIDIC contract as a base. Obvious problem areas include the following:

Design, Standards and Scope of Work

Offshore wind projects frequently progress on a fast track basis. Although a detailed FEED will generally be undertaken, the overall design of the wind farm structure will often be incomplete, with aspects such as the physical location of the individual turbines, converters, transition pieces and monopiles left for future development.

This makes the task for allocation design responsibility complex. Generally speaking, the Employer will prepare the overall conceptual design for the project and will assume responsibility for this. Frequently however the task of preparing the detailed design will lie with the lead contractor and, particularly where the conceptual design is relatively immature, the preparation of the detailed design will include a considerable element of design development. This can be difficult to accommodate within a lump sum EPC contract and represents a significant risk for the contractor.

The required standard of work will often generate further issues. The EPC contract will typically require the Contractor to carry out the work with reasonable skill and care and in accordance with good industry practice. The Contractor will also be obliged to comply with the Specification, to meet the requirements of the relevant regulatory bodies including the Classification Society, and often to deliver Work that is expressly fit for purpose.

Offshore Wind Construction Contracts

The Interface with Other Contractors

Although most offshore wind projects will have a head or lead contractor, the Employer will often contract separately with some or all of the other key contractors. This approach creates 2 sets of issues, firstly in allocating access to the offshore site and secondly in addressing the interface issues that arise where the completion of an activity requires coordination between two or more contractors.

The allocation of access will typically be the responsibility of the Employer, sometimes utilising the mechanism of a narrowing window. Where timely access is not granted, the Contractor will in principle be entitled to compensation for any additional cost incurred and to an extension of time for performance of its obligations. This principle may not however be followed where the delay is caused by Force Majeure or adverse weather affecting the performance of the preceding contractor, and this is potentially a significant risk for contractors.

The interface between various contractors working on the same project is a further problem. Many aspects of design and installation will make assumptions as to the type of vessel and approach another contractor will take to its scope of work. Any change for example in the location of the Work may, in addition to requiring modification to the relevant structure, have a knock on effect into the work of the installation contractor and the allocation of responsibility for

the cost and time of this will need to be set out clearly in the contract.

The Concept of Delay

Even where the right to an extension of time is potentially available, the difficulties of calculating the correct period of that extension can be formidable. Most contractors will prize the float available to them for the flexibility and protection this affords in planning their schedule of work. However, the English Courts tend to take a very strict approach to the calculation of a delay claim, requiring clear evidence typically utilising a critical path analysis, that the relevant event has delayed the achievement of the relevant milestone. This calculation will often require the contractor to utilise any remaining float before its entitlement to an extension of time crystallises.

A further issue, in the North Sea at least, are the limited weather windows available for certain types of work coupled with the problems of the availability for specialist construction and installation vessels. The variabilities these introduce can make an accurate calculation of a period of delay extremely difficult.

The size and complexity of offshore construction is such that disputes are always a significant risk. The period of time during which such projects are performed coupled in recent years with the very significant supply chain disruption that has led to substantial increases in construction costs, has exacerbated these risks



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Contracting for vessels to be used in the offshore wind industry

Contracting for vessels to be used in the offshore wind industry

The first licence round for developing offshore windfarms on the Norwegian continental shelf was announced in March 2023, where interested parties were invited to apply for prequalification for the auction for the Sørilige Nordsjø licensing rounds within 4 August 2023. The announcement provides information on what the applicants are to include in the licence application as well as criteria for prequalification for the Sørilige Nordsjø licensing rounds. Notably the applicants are not expressly required to provide information on its contracting strategy. Furthermore, it is not clear whether the Norwegian authorities will set as a condition in the licence that Norwegian law and contract tradition is required to be used in the contracts entered into in relation to the licence as is the case for exploration licences in the oil and gas sector on the Norwegian continental shelf.

In spite of the uncertainties and the relative infancy of the offshore wind industry in Norway there seems to be substantial interest for participating in bidding for the licences on the Norwegian continental shelf. The number of companies that have publicly announced that they are interested in participating in the licencing process on the Norwegian continental shelf illustrates the attractiveness of this process. The companies have different background; some companies have a background in the oil and gas industry, either as operators or as contractors, while others have a background in land-based electricity production or distribution. In addition, there are a variety of companies from other sectors, including shipping companies and investment companies that have announced interest in the offshore wind industry in Norway. The different backgrounds of the companies entering the offshore wind industry on the Norwegian continental shelf may have an impact on what the contract strategy for the different consortiums will be

As the offshore wind industry on the Norwegian continental shelf is at a very early stage, it is too early to know with certainty the contract format



and terms that will be used in the industry for contracting service vessels. Experience from other more mature jurisdictions, including Denmark and the UK sector, may give some indication as to what contract formats that can be expected for vessel owners in the offshore wind industry.

In the early phases of the establishments of wind farms, construction support vessels and installation support vessels (referred to below as "CSOV Vessels") will be of importance. As these vessels are used for construction and installation of a wind farm, they are mainly contracted for shorter periods, to do particular construction and/or installation work. Contracts can be entered into with the field owner/licence holder directly. It is however not uncommon that the licence holder contracts with one contractor for the whole project, the EPCI contractor, alternatively a few main contractors. The EPCI contractor(s) may then enter into subcontracts for parts of the work, hereunder with a vessel owner for some of the construction scope and/or the installation part of the project. Contracts are often based on FIDIC-contracts or similar, as the main contract for the wind farm (the full EPCI-contract) is frequently on such terms and its terms flowing down to the vessel as a subcontractor. In these contracts, it is not uncommon that the vessel owner will be expected to perform some engineering and be responsible for the result of the work he is contracted to perform. As a consequence, it is worth emphasizing that the risk profile for the contracts used in the offshore wind industry is fairly different from the traditional risk profile in corresponding contracts used in the oil and gas industry.

Once the wind farm is in operation, there will be a need for Service Operation Vessels ("SOV Vessels"), typically with walk to work facilities. As for the contracts for CSOV Vessels, charterers may be the licence holder/operator of the wind farm or a third party that has undertaken to perform maintenance at the wind farm.

Contracting for vessels to be used in the offshore wind industry

Another alternative is for a vessel owner to contract with a service provider to the wind farm, e.g. the turbine provider, as part of their maintenance program. Due to the high focus on margins in offshore wind projects, digitalization and remote operations are expected to play a key part in maintenance and operations services going forward. This may again be reflected in the contractual cost allocation models through an increase of maintenance costs during the contract term, by allowing renegotiation/adjustment of rates and/or by entering into contracts with shorter terms.

Based on experience from the UK and Danish sector, it can be expected that SOV Vessels may be contracted on Supplytime-like contracts or alternatively internal standard contracts developed by the operator of the field (which in our experience is still quite similar to what we see in the oil and gas industry for PSV vessels). There are however some differences worth noting. One example is that the liability regime is quite frequently modified away from a clean knock for knock regime and are more in line with onshore projects rather than offshore projects. Additionally, some charterers expect the vessel owner to absorb liability for damage to the installation caused by the vessel. A liquidated damages regime for late arrival at the field as well as guaranteed performance (and availability of gangway) is also common. These differences from contracts for PSV Vessels, may be a reflection of the charterers frequently having experience from onshore electricity projects rather than from the oil and gas industry, bringing with them a different contract tradition and risk allocation than what is often seen in the oil and gas industry as well as the projects having a different risk profile and is financed through

different financing models than offshore oil and gas projects. Compared to oil and gas projects offshore wind solutions are generally also less field specific, with a higher focus on margins and cost reduction through standardization and large scale production, which in return has an impact on the contractual cost and risk allocation.

Due to the need of the charterers for doing maintenance in some periods of the year only, contracts for SOV Vessels are to some extent fixed for certain periods each year instead of a continuous contract, which may make it difficult for owners to contract the full vessel capacity for longer periods.

For smaller vessels used for transport of personnel and equipment to offshore wind installation projects, the BIMCO Windtime contract is frequently used. The Windtime contract is based on the Supplytime format but is adjusted to accommodate the particular needs for transport services by smaller vessels to the offshore wind industry. By way of example services are to be rendered during specific parts of a day that are defined as "a working day". This is by contrast to the normal shipping practice of contracting on the basis of services being provided on a 24/7 basis. In addition, Windtime provides alternative solutions for delay in delivery, where notably, and in contrast to Supplytime, a mechanism for liquidated damages for late delivery is introduced as one of the available alternatives. As for the Supplytime-contract, the Windtime-contract incorporates a knock-for-knock liability regime. It should also be noted that the overall liability for both parties under the Windtime contract is limited (although subject to certain exclusions).



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Status on CCS in Denmark



Status on CCS in Denmark

The current status on Carbon Capture Storage (CCS) in Denmark is best understood with reference to the report posted by the Danish government (Klima-, Energi- og Forsyningsministeriet) on 21 August 2023 (the "Report").

There is little doubt that Denmark's political ambitions when it comes to CCS are large and CCS is seen as a primary means by which Denmark can reach the goals set out in the Paris agreement and Denmark 2030-targets. However, the Danish government's interest in CCS primarily arises in relation to the industries where a green transition otherwise seems difficult, namely the production of cement and the incineration of waste.

In February 2029 the first exploration licenses were granted for full scale offshore CO₂-storage in Denmark, and the first actual storage of CCS was completed in the North Sea in March 2023. The Danish government sees this as the start of a journey towards making Denmark a European hub for the storage of CO₂, and it is estimated (GEUS) that Denmark can store the equivalent of 500-1000 years of Danish CO₂-emissions. As such, there should be plenty of capacity to handle both national and internationally captured CO₂.

Since 2020 several political compromises have been reached to try to facilitate a market driven development of CCS in Denmark. However, it is now recognized that clarity needs to be established on the long-term framework for development of and investment in CCS projects in Denmark to enable necessary growth. The following four areas are highlighted as being of particular importance:

CCS subsidies:

The Report concludes that there are currently not sufficient financial incentives to encourage the development of CCS without state subsidies. Some Danish subsidy programs already exist,

encompassing both CCS and CCU (Carbon Capture Utilisation). However, it is the position of the Danish government that all current subsidy programs should be rolled into a single CCS program, as it is currently not certain that reductions from CCU will count towards Danish CO₂ emissions. This is primarily a result of Danish PtX-fuels also being usable outside of Denmark.

It is noted that the next round of subsidies will open for applications by June 2024 followed by a second round in June 2025.

Governance regarding transportation of CO₂ by pipes:

A well-functioning market already exists for the carriage of other gasses by ship, truck, and train, and it is expected that a similar market will develop regarding CO₂. However, it is currently not clear who can own and operate CO₂ pipelines and to what extent third parties must be granted access to such pipelines to avoid monopolies.

As a result of the above, the Danish government is working on a new act on transportation of CO₂, which has just been presented in its first draft in parliament. It is the intention that the act will allow both public and private companies to establish, own, and operate the necessary infrastructure and that the Danish Utility Regulator (DUR) will be authorized to regulate third party access to such infrastructure. In addition, the act will include mechanisms for the expropriation of property for establishment of pipelines.

Storage licenses:

The Government is proposing that the state-owned Nordsøfonden is granted a 20% ownership interest in all storage licenses. This is to ensure that the state obtains a financial benefit from the utilization of a scarce resource, and to make sure that the state has some say in its use.



Status on CCS in Denmark

The Government is also proposing to initiate a tender for eight new exploration licenses on- and offshore in December 2023, subject to positive results of ongoing environmental studies currently being conducted by the Danish Energy Agency. As a final point of note, the state of Denmark has already invested more than DKK 200 million in geological surveys of the Danish underground to find suitable CO₂ storage locations, and such survey data has been made publicly available to encourage CCS developments. It is being proposed that it becomes a requirement under future license tenders that the licensee pays to the state an amount equivalent to the state's cost in determining the specific storage location.

The international framework:

It is believed that a well-functioning international framework is fundamental in ensuring completely

clarity on CCS in Denmark. Denmark will primarily work towards this goal through its EU-membership and bilateral agreements with other countries, including Germany, Norway, the Netherlands, Sweden, Poland and France. It may be mentioned that Denmark and Belgium have already concluded the first agreement of its kind on transboundary movement of CO₂ in pipelines, and cooperation agreements on CCS have furthermore been concluded with the Netherlands, Norway, and Germany.

Concluding remarks:

Schjødt is heavily involved in CCS projects in both Denmark and Norway, and we are following developments within the area closely. We will follow up this newsletter with a more thorough overview of the proposed CO₂ pipeline act.



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