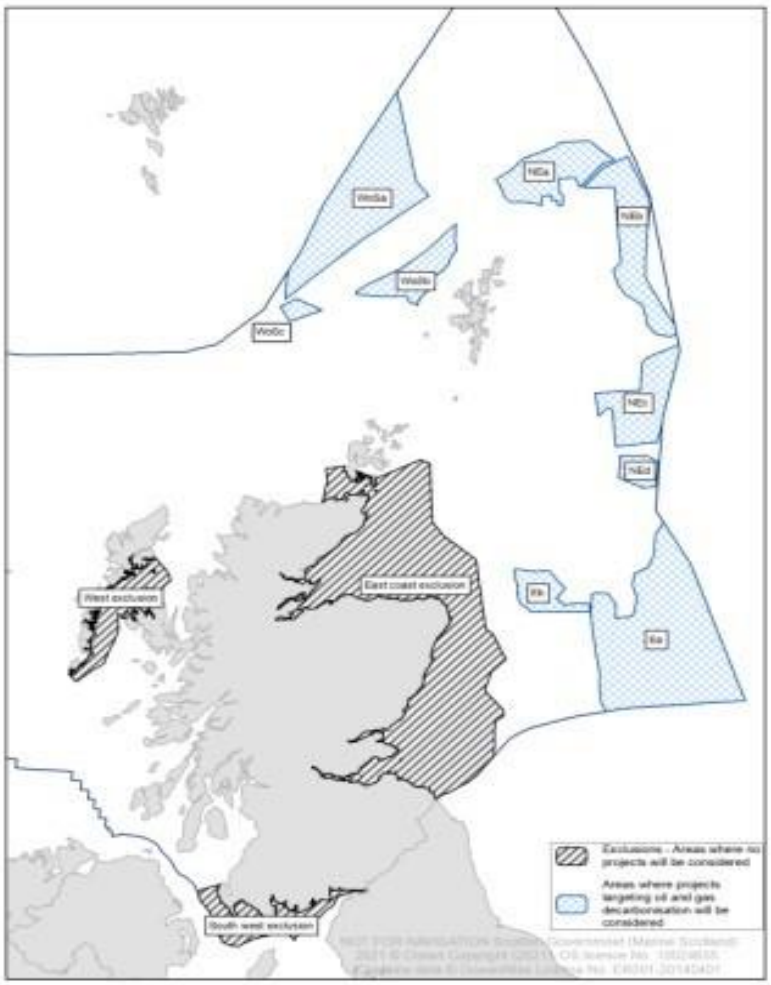
Charley Rattan Associates
Wind and hydrogen consultancy and training

Innovation and Targeted Oil and Gas | Floating Wind

INTOG



March 24, 2023

Crown Estate Scotland has selected 13 out of a total of 19 applications with a combined capacity of around 5.5 GW in the world's first leasing round designed to enable offshore wind energy to directly supply offshore oil and gas platforms.

I though the community may be interested in insights shared last July…

This week's INTOG (The Innovation and Targeted Oil and Gas) leasing announcements got me thinking about the rather curious state of play interface between renewable energy and oil and gas majors.

Although the word itself sound ugly and clunky, the process is important to the offshore wind and especially the nascent floating wind sector here in the UK. The spiritual home of carbon 'big oil' big is actually decarbonising the entire process and looking for ways to do this effectively.

I was recently at Canary Wharf, moderating a session where one of the speakers was a director of Ceruleanwinds shared his project based around a combination of floating offshore wind technologies and the electrification and decarbonisation of big floating offshore wind farm with oil. As we see below, they are talking with the right people.

Crown Estate Scotland formally opened its Innovation and Targeted Oil and Gas (INTOG) offshore wind leasing process this week with a two-week registration window opened this week with the opening of the application window to follow later this month with application deadline of 18 November 2022.

Developers are invited to bid for seabed leases off the coast of Scotland to build projects that reduce North Sea emissions and boost innovation.

The auction is in two streams, with a 500MW cap on innovation projects of less than 100MW each, and a 4GW cap on targeted oil and gas (TOG) projects,

according to the Scottish government's Initial Plan Framework.

Assigned zones are off the east coast of the Scottish mainland and to the west of Shetland for TOG projects, which will be developed to electrify oil and gas infrastructure.

Innovation projects meanwhile can be proposed in any location that is not earmarked for TOG projects or an exclusion zone. This includes seabed immediately off the east coast, to the west of the Western Isles and off Scotland's far southwest.

Developers submit a Supply Chain Development Statement before they can sign an option agreement, which must outline the nature and location of their supply chain activity as well as detail the people and skills linked to their project.

As we see from the image below the skill involved in developing major offshore wind projects are often similar to those held by the savvy offshore oil and gas majors and represent a potential future for both the corporates and individuals involved:

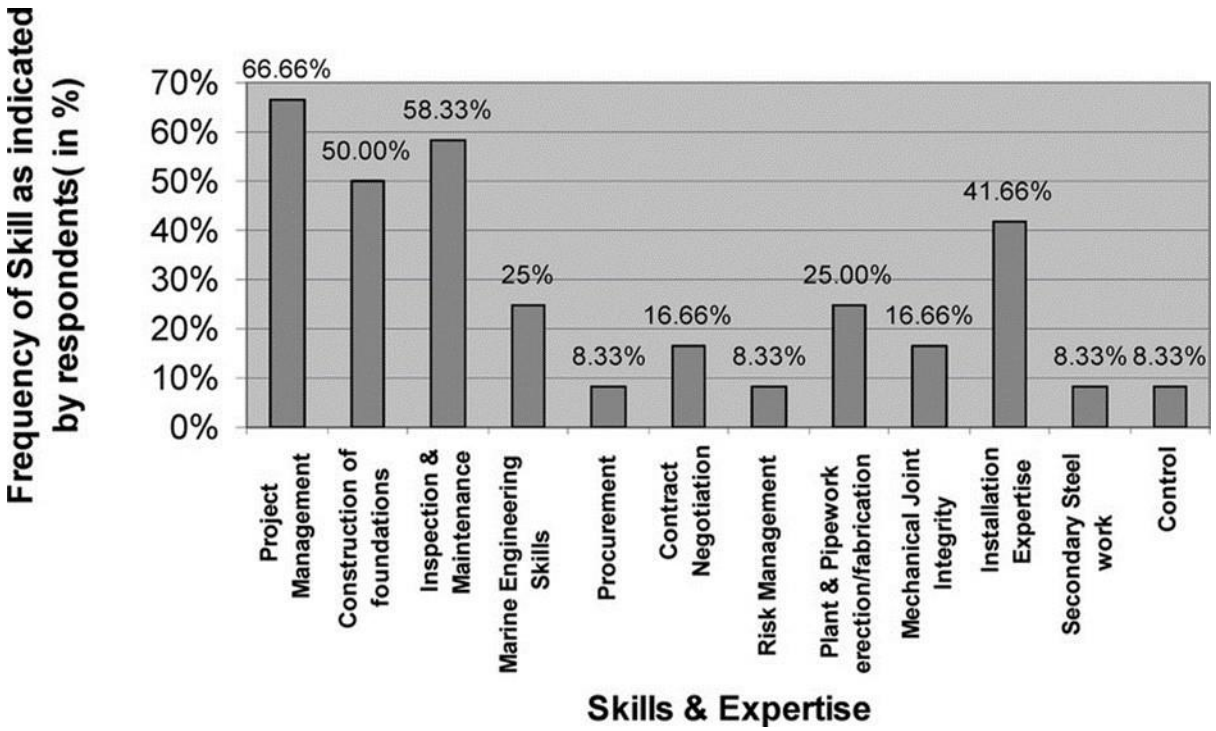
Curiously for a holistic grid event Ceruleanwinds scheme didn't actually require significant grid involvement as it is more of a merchant

direct- line model and meant to directly connect oil and gas assets.

This model is useful for both retrofitting existing infrastructure but also new sites which have been given granted a new lease of life due to geopolitical uncertainties in the last 12 months. Shetland is watching the programme closely

INTOG aligns with ScotWind but is separate from it and, given the tight build out timelines, could even be seen as an enabler of it. ScotWind was memorably described to me by a senior stakeholder at Global offshore wind as …'three years of delay, followed by a big dump.'

One reason for this was a fixed v floating supply chain squabble in the background but it is possible that the floating supply chain requirement from INTOG can mobilise the supply chain and that ScotWind can be the beneficiary. As with Scotland supply chain requirements are part of the process and include fabrication, steel, vessels, ports helicopter and logistics and all the other elements of major offshore wind development



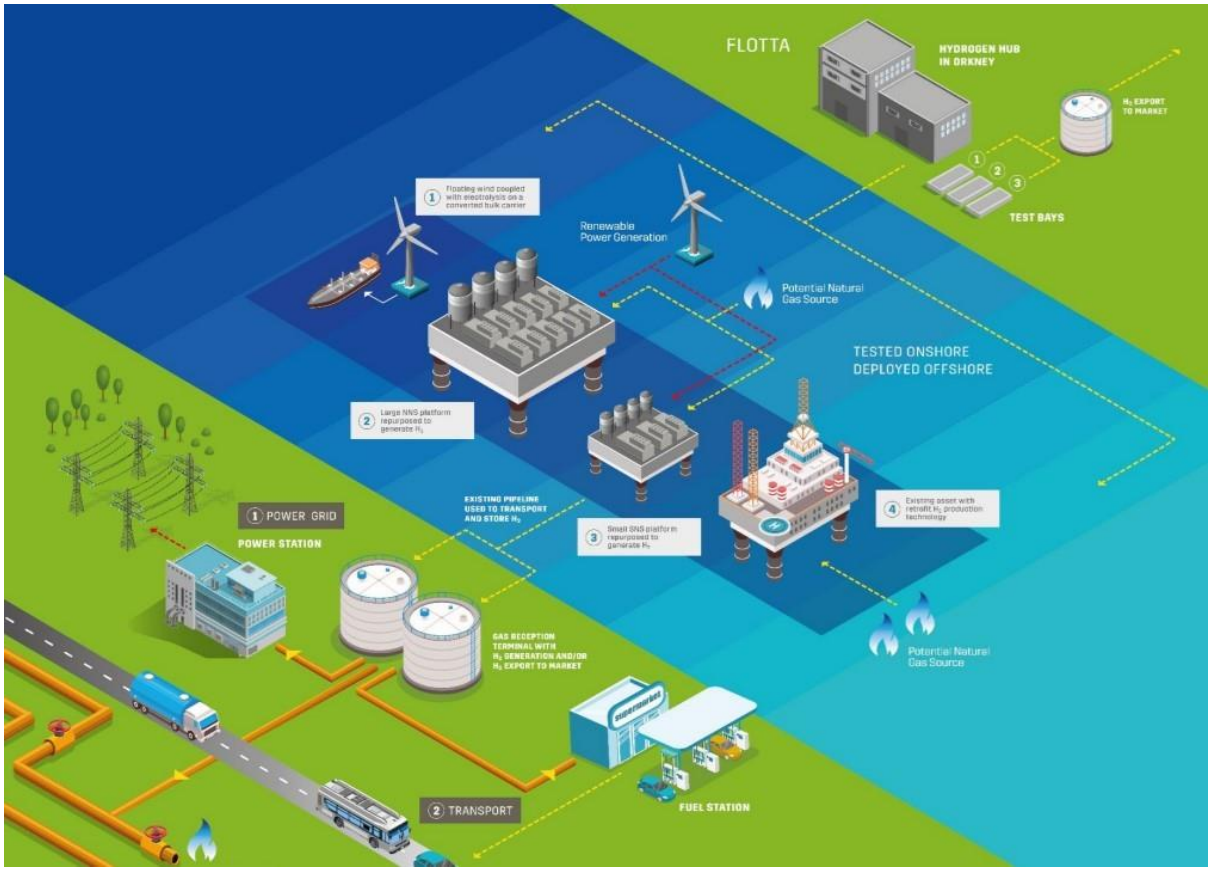
So, as with ScotWind and indeed any other transformation major initiatives INTOG has not been without friction. The authorities have recognised this and the prices have been spread around certainly with the round four where utilities are still consolidating very much involved, although from my local area and the North West, there was evidence how strong the BP presence - a company with no particular history in delivering renewable projects.

Elsewhere as the ScotWind options are analysed, BP, Shell and others will also evidence and even those figures have now been dwarfed by involvement in other locations for offshore wind, enabling the Gulf of Mexico and California to become big players, especially in the world of floating wind.

I've been noticing over the years and commented indeed on the round four day how there were new entrants to the world of renewable energy. As a veteran of the circuit, it was evident that the utilities who led the charge in the early days although still there have been to an extent joined by a new breed of Big Oil and Gas majors. that to some extent, this has caused a problem because the oil and gas majors have deep pockets and they're easily able to outbid some of the more restrained and governed utilities who have taken the brunt of the early risks.

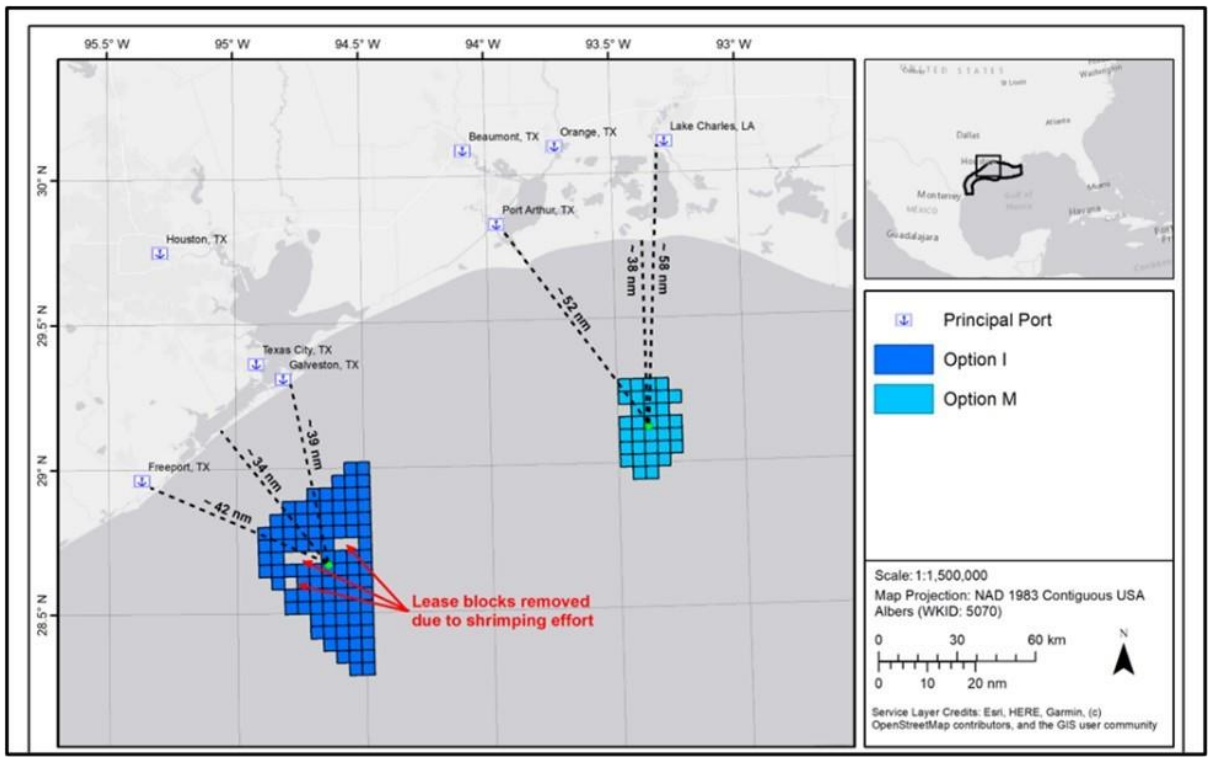
Things tie up rather well for big oil and gas new interest in offshore wind and its new hydrogen sibling and worth sharing with the community.

One is the Celtic Sea with the tie up between floating powerplant and BP, once again. Another is Orkney, where the oil and gas infrastructure around the island of Flotta, part of the Orkney archipelago, the world's first hydrogen oil and gas facility. Orkney for all its remoteness and small scale is something of a world leader and a nascent hub for both hydrogen and floating offshore wind.



With the massive Scapa Flow natural harbour and existing knowledge base of how to deliver a hydrogen economy. The oil and gas terminal at the island of Flotta has world leading hydrogen and decarbonisation aspiration is extremely well placed should the islanders so wish.

Going forwards the prize encompasses Brazil, the Far East, and especially the Gulf of Mexico, where Boem recently announced the first two offshore wind farms off Port Charles and, significantly the oil and gas port of Galveston.



I'll be keeping you informed as the oil and gas industry joins the utilities in driving forward the sector.

If this subject interests, you feel free to join with me and an expert community: https://bit.ly/3rhoSWF

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