



Decommissioning in the North Sea

Fundamentals and financing

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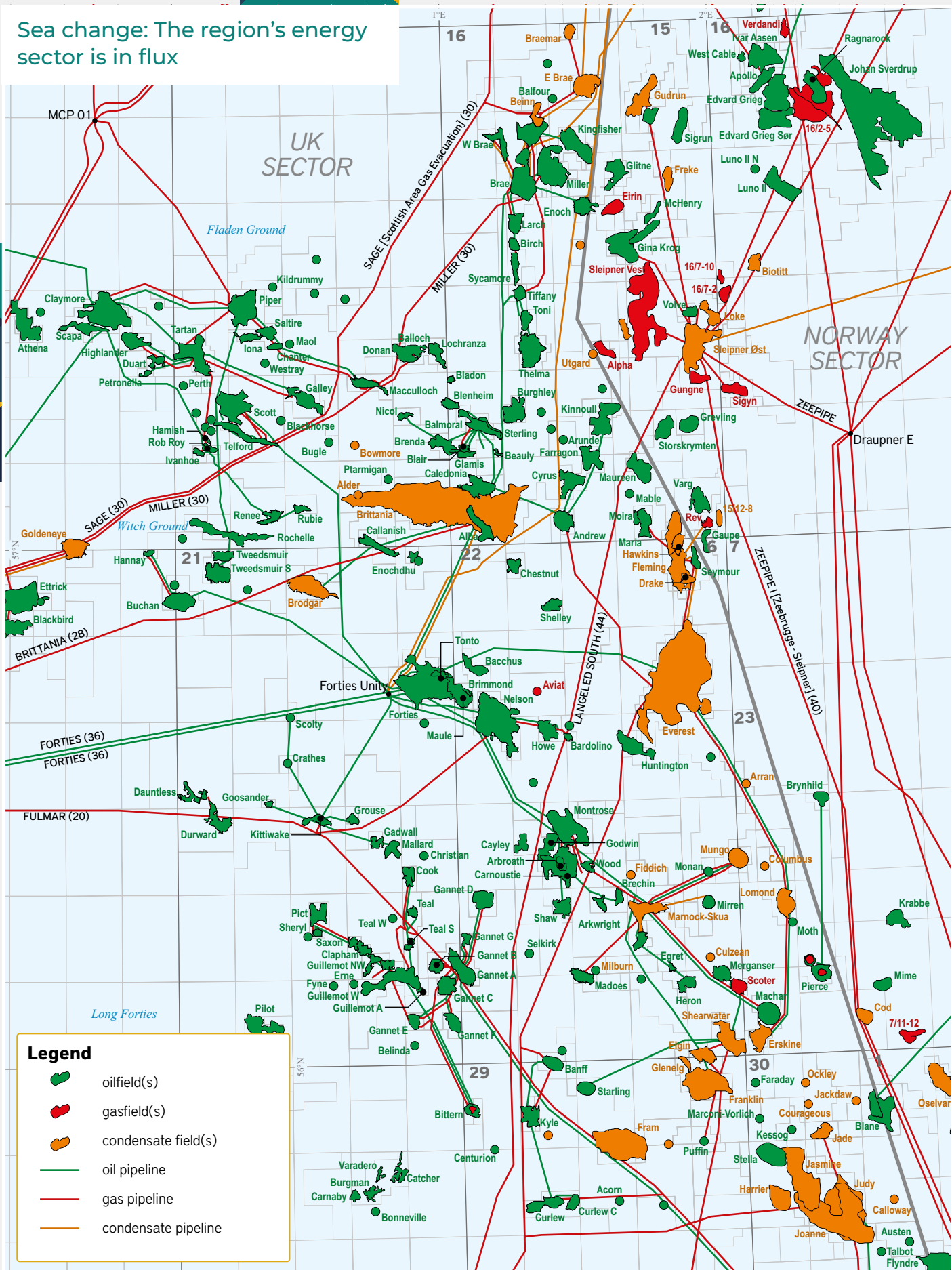
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Sea change: The region's energy sector is in flux



Legend

- oilfield(s)
- gasfield(s)
- condensate field(s)
- oil pipeline
- gas pipeline
- condensate pipeline



North Sea at the crossroads

Decommissioning will be the region's main activity in the future

Battered by low oil prices and diminishing production during the downturn, the North Sea industry is making a comeback. But it won't be the North Sea we've known.

Although exploration will continue for years to come and finds will be made, mainly by smaller private equity-backed operators, decommissioning will be big business in the foreseeable future. With more than 60% of North Sea wells due for shut-down within the next eight years being located in the UK Continental Shelf (UKCS), it's big business.

The numbers tell the longer-term story. Total annual "decom" spending began to take off in 2016, rising by 11% to £1.2bn in the UKCS alone. In 2017, it jumped by 48% to £1.8bn. And between now and 2020, Oil & Gas UK expects it to hold at around that level. Overall, between 2017 and 2025, Oil & Gas UK estimates £17bn will be poured into decom contracts.

Faced with such a substantial amount of work, the North Sea industry is raising its decom game. For instance, 170 miles east south-east of Aberdeen, the dismantling of the Janice subsea field is heading for completion on time and under budget by mid-2018. In one of the biggest such exercises to date, some of the steel and concrete has been sitting up to 120 metres down on the seabed for 15 years.

As contractors hone their skills, Whitehall has given the industry a goal of reducing by 35% the total cost of decommissioning the UKCS, in part because the government sees prospective export earnings from a highly-skilled dismantling task force. In truth, the decom industry had some catching up to do. According to internal industry estimates, until the last few years the average project cost about 80% above budget.

Regulation

One of the impediments to the swift dismantling of infrastructure has been the burden of regulation. The Department for Business, Environment and Industrial Strategy (BEIS) is the overall regulator, but there's a host of other interested parties involved. These include the Oil and Gas Authority (OGA), which works with the BEIS, OSPAR responsible for protection of the North Atlantic, the Scottish Environmental Protection Agency, Marine Scotland and a number of UK organisations including the UK Environment Agency, Health and Safety Executive, and the Joint Nature Conservation Committee that is responsible for the environment beyond the 12-mile nautical limit.

This isn't a full list by any means. And on top of these bodies, decom contractors are answerable to no less than 20 different laws. Scores of stakeholders are therefore involved in any decom decision, from fishermen's organisations to environmental pressure groups.

Obligations

Recognising that every project has a lifetime, there are also financial obligations in the form of decommissioning bonds or guarantees, in effect incentives to do the job properly. These are put in place to ensure the operator fulfils contractual duties in returning the site to a condition as close as possible to its original state. The beneficiaries of these instruments can be a landowner, environmental agency or perhaps a trust that represents the interests of various parties.





These instruments typically take the form of financial or performance guarantees. In the event of the company failing to restore the site to its “as-was” condition, the bank becomes the first source of payment and holds the money until the operator fulfils the contractual obligations.

Although there’s inevitably a lot of red tape in the dismantling process, some of the regulations are proving to be highly beneficial. One of the remits of the OGA, for instance, is to ensure that operators don’t dismantle infrastructure while hydrocarbons can still be profitably recovered.

The result? On average the life of fields in the UKCS has turned out to be five years longer than the original plug and abandon date. The latest advances in technology, especially in the form of digitisation, have contributed greatly to prolonging the life of these fields, even during the downturn, because they have lowered the cost of production per barrel.

Operating costs

In general, the oil and gas industry in the UKCS and in Norway has reacted to the downturn much faster than many predicted. Entering 2018, unit operating costs had halved compared with four years ago and production was up by 16% on the back of improved economies of scale. In fact, last year the UK became a net exporter of crude for the first time in 14 years, in part because it profited from the collapse of heavy oil output from economically stricken Venezuela.

In one of the most hopeful observations about the North Sea in years, Vienna-based forecaster JBC Energy estimates that the region’s crude output will increase by 350,000 barrels a day by 2023. Most of that growth will derive from small UK projects in the short term and from big Norwegian projects in the long term. The latter are expected to turn around decline rates by 2020, estimates the forecaster.

JBC Energy’s conclusion: “There is clear potential for the UK to return to being a net exporter again.”

This is a much more cost-conscious industry than the one that entered the downturn. Despite revenues in UK’s oil and gas services sector – the whole supply chain – collapsing by more than £10bn between 2014-2016 in an apparent tidal wave of red ink, EBITDA declined by just £1.7bn a year on average over those years. That’s because of big gains in efficiency.

M&A

The industry’s rebound has made investors, especially private equity, more confident. They pumped £8bn into the UK Continental Shelf alone in 2017 in the form of mergers and acquisitions, the big ones being Chrysaor’s \$3.8bn acquisition of Shell’s assets, and Total’s \$7.45bn buy of Maersk Oil. Other acquisitions included Ineos’ of Dong Energy, Delek’s of Ithaca Energy, and Neptune Energy’s of Engie.

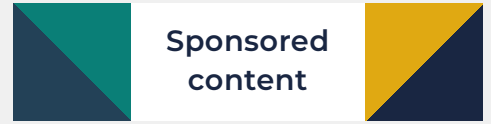
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While these deals may look as though the majors are fleeing the North Sea, appearances deceive. Most of them have retained a stake in key UK assets and, as Oil & Gas UK points out, “they still view [the UKCS] as a basin of strategic importance.” Indeed, in some instances the majors have kept hold of the decommissioning commitment in order to facilitate the sale.

Until last year production from the UKCS had declined for the last 14 years and any future increases will depend on finding hydrocarbons in the most difficult areas. For comparison, output by the US oil industry is now three times greater than production from the North Sea, a gap that’s expected to widen steadily.

Overall though, the North Sea oil and gas industry has knocked itself into much better shape as it enters a different era. All that’s needed now is that oil prices hold around the \$70 mark. While the oil price shapes any decommissioning project, there are many different factors to bear in mind, and getting financial planning in place early on can be critical to its success.





Drill down

Rate of decommissioning picks up, but so does expertise



Decommissioning in the North Sea is reaching new levels, and a number of government initiatives have been put in place to help companies manage their projects appropriately. Still, it's a new world to many operators, so getting financial assistance in place can be crucial. *Petroleum Economist* spoke to *Jonas Persson*, MD, Global Head of Energy and Utilities, and *Jim Ayton*, Technical Director, Energy, Lloyds Bank Commercial Banking to find out more.

What do you think is driving decommissioning in the North Sea? And how have motivations changed over the past few years?

Jonas Persson (JP): A lot of it's driven by regulation, as well as levels of production, the oil price, and then of course people believe they can do things better, more effectively, and that in turn has an impact on the evaluation on certain assets.

Jim Ayton (JA): When the oil price crashed, production went up because everyone wanted cash so they deferred some shut downs and maintenance, to pump as much as they could. Even though decommissioning would come forward in a low price environment people tended to try and stave it off. The NPV of a two year delay is enormous for decommissioning, compared to the cost of having an infill well, or doing something to upgrade the plant and improve production performance or to reduce operating costs.

Some of the more fleet of foot operators are able to play those tricks. The supermajors tend to plan for decommissioning years ahead. Shell for example, in the Brent field, has been planning that for years.

When companies come to evaluate decommissioning as a strategic option, how do they weigh it up?

JP: Looking at the supermajors they have at least options. Some will be less comfortable letting another company do the decommissioning for them, but we do see some passing on the decommissioning obligations. BP for instance is one that we know of, and of course Shell, when they sold to Chrysaor, kept some of the decommissioning responsibilities. It's a mixed bag; some don't see decommissioning as an opportunity in its own right, but in the context of an overall asset portfolio, of the overall asset that they're looking to buy, they may do.

JA: The government has tried to make it a lot easier, around reclaimable tax on the assets. They haven't



Jonas Persson, MD, Global Head of Energy and Utilities, Lloyds Bank Commercial Banking

Jim Ayton, Technical Director, Energy, Lloyds Bank Commercial Banking

really done a very good job, it's piecemeal rather than all the tax history passed on to assets through M&A. But there are deals where partial decommissioning is kept, others in which all decommissioning is kept by the seller, and there are cases where people want to pass on everything including the decommissioning. There's quite a few exits from the North Sea – exit meaning all the decommissioning passed on as well. However there is government legislation, the 'Hotel California' principle whereby you can check out any time you like but you can never leave. So if during decommissioning someone fails, the government can chase back previous owners. Obviously when companies are selling assets with decommissioning they want to be selling to a company that they can be sure is going to perpetuate.

In terms of cost risks, Oil & Gas UK has published a decommissioning calculator, which you can use to get a reasonable, current idea of what decommissioning is going to cost you.

JP: The UK's North Sea has perhaps seen the most decommissioning of late. There's a learning curve here, decommissioning is going to go ahead on a global scale. That's not only on the upstream oil and gas side, in the UK there's a lot of offshore wind firms who are very active in their decommissioning.

These are all transferable skills. A lot of companies active in the North Sea are active elsewhere, so the support for the supply chain in the North Sea is undertaken by global businesses. There are challenges and in the UK there's fairly robust legislation while elsewhere it's less so. Still there's lessons to be learned.

What are the risks involved with decommissioning, once a company has decided to proceed with it?

JA: Aside from the cost risks I would say the main risk is in decommissioning old subsea wells which have been passed on through a number of parties and you've not got any completion diagrams on what equipment is down there. To add to this uncertainty, some of the valves are old and can be leaking. In order to decommission such a well you need to have pressure integrity. So you need to get a drilling rig to

enter the well and there is some uncertainty since you don't know what you're likely to encounter. If there's a lack of information on what's down there and things start to take longer than expected that's when you can get significant cost overruns.

From a purely financial point of view, how should a company assess a decommissioning project?

JA: The OGA and Oil & Gas UK are trying to persuade companies to decommission on a hub-by-hub basis together, so companies might look at multiple decommissioning projects rather than one, and they should be able to drive prices down.

JP: People expect decommissioning costs to come down. This type of cluster – or hub – decommissioning can bring about 20% savings, so a substantial portion of the savings total.

As decommissioning costs come down, these can be reflected in how lending and debt capacity is assessed by the banks. Cost savings from cluster decommissioning will be taken into account when they are concrete and viewed as executable. Banks will always try to evaluate cash flows in several scenarios including a worse case where these savings are not fully achieved.

JA: In terms of weighing up a decommissioning project, companies should do it creatively. Can some platforms be reused by someone else? What about the rigs to reefs issue? There are many ways to manage cost, and a lot of options on how to do this.

There is a range of financial products and mechanisms out there for firms considering decommissioning. What advice would you give them?

JP: There are three main areas through which we can support both producers and service companies in relation to decommissioning:

- › Letters of credit
- › Receivables purchase
- › Other tailored trade finance solutions.

These solutions will evolve to meet bespoke needs.

JA: Another area that could further develop is the insurance market. Once you've decommissioned wells you are required to monitor them – for instance once every five years you might need to send down a camera to see if the wells are leaking. You could potentially get an insurance product to remediate against any leaks which are found.

JP: Elsewhere, you could get someone to decommission a well now, but you don't want to pay for it for another three years. That's a trade finance product which is an option for some people.

JP: In Norway, in particular, they have had a longer

time period of tax, expenditure – anything government related that they can claw back – and so they can isolate that well and lend against it and issue trade finance against it. In the UK, the role of the financial institution is to develop a product that recognises the recourse to government and to help the operators, as well as to support with the costs of decommissioning.

Typically we use trade finance instruments that make sure that the cash flows during the decommissioning process are in place. Decommissioning bond/guarantees are probably the most common instruments to put in place to cover corporate obligations.

Vanilla financing instruments will always be the most popular way of doing things for trade finance, but I think the key thing is developing the product to identify where the recourse risk is, in order to reduce costs in the future.

JP: For instance, if the government exposure is say 50% then at the beginning of the year you could lend that to the company in the knowledge that you'll get that back at the end of the year when the company files a tax return. That smooths out the cashflow for the company.

*For more information email
jonas.persson@lloydsbanking.com or
jim.ayton@lloydsbanking.com*

Case study: Q&A with Andrew Pizzey, CFO, INEOS Oil & Gas UK

What led the company to decide that decommissioning was the best option?

Decommissioning is not an option but a requirement when developing oil and gas fields.

How did you approach the financial structuring of the decommissioning project?

The decommissioning projects are funded out of operating cash flows and revolving borrowing facilities. We regularly review the amount and timing of decommissioning expenditure and ensure that we reserve sufficient cash or have headroom in our facilities to fund the project.


How did it impact your overall portfolio?

Our decommissioning expenditure has so far been small compared to our overall cash generation so has had limited financial impact. We do employ resources to monitor our decommissioning obligations, whether in respect to our operated interests or those arising from non-operated interests, in order to minimise the impact on our producing oil and gas activities.

What assistance do you expect from your bank throughout the process?

Banks should be supportive when decommissioning cash flows present a more significant financial burden on the business. Key will be recognising periods of heavy decommissioning expenditure well in advance and ensuring that funding is available to meet obligations. Decommissioning will become a more significant activity in the oil and gas industry, particularly in the UKCS, and banks should look to bring innovative products to market to accommodate the financial impact of these activities.

Helping to power change



Energy is ever evolving and to support you to navigate through this, our specialist team can provide you with insight into regulation and tailored trade financial solutions. So whether you're planning decommissioning or structured asset management, talk to one of our energy experts to see how we could help.

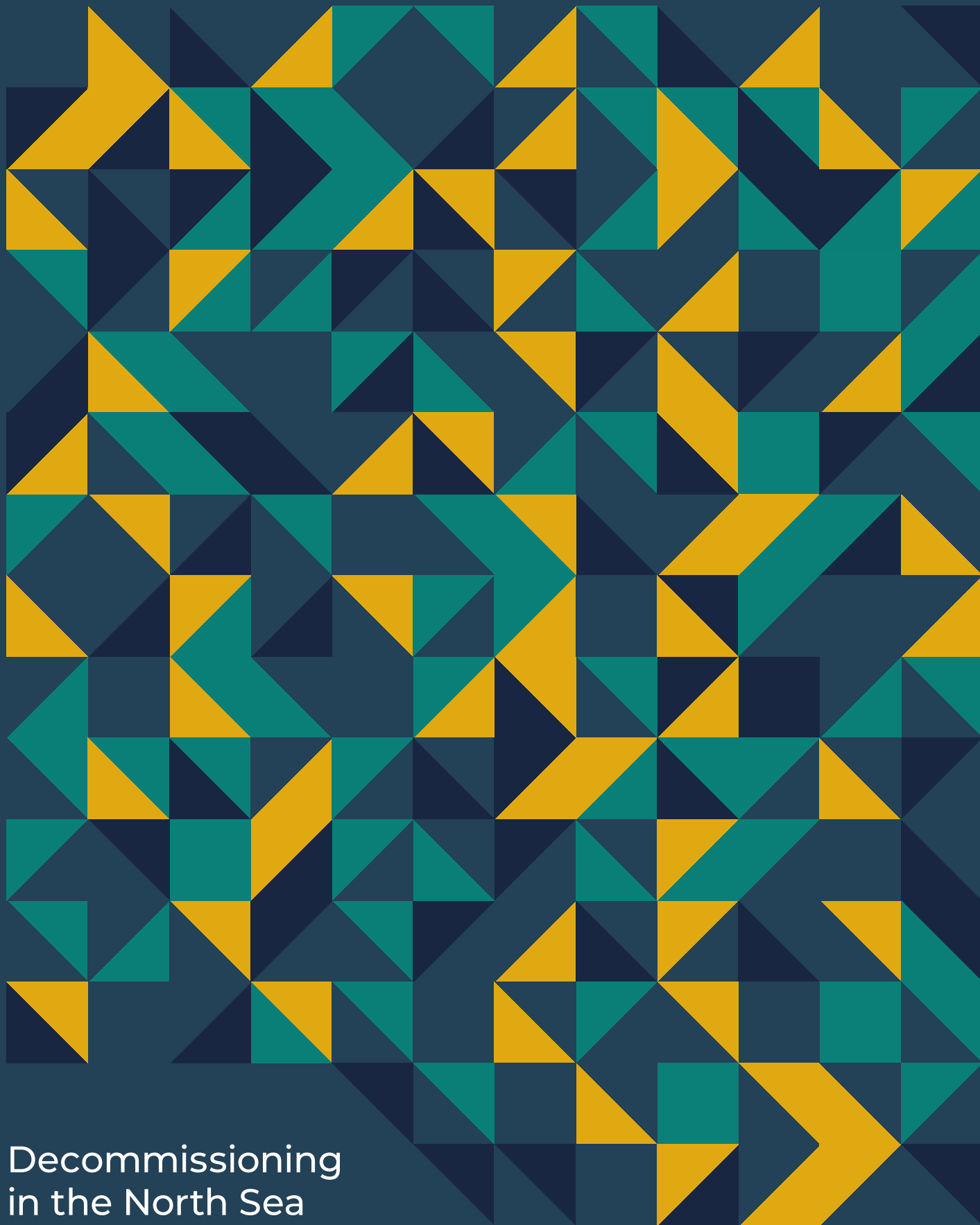
Contact us at
decom@lloydsbanking.com

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