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ROUNDTABLE

Navigating the green energy transition



Navigating the green energy transition

The North East's role in international commerce

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Photography by Charlotte Beeckmans and Lauren Peters (The Bigger Picture Agency)

ROUNDTABLE

In 1866, while living in exile in Guernsey, the French romantic writer Victor Hugo captured the fierce resistance to the advent of steam power.

In *Toilers of the Sea*, he wrote: “The savants rejected steamboats as impossible; the priests anathematised them as impious...Fulton was a new incarnation of Lucifer.”

It would take much of the nineteenth century for steam to prove its worth, as doubts over reliability, cost and fuel supply lingered for decades and shipowners and mariners continued to cling to sail as a free, familiar and trusted force.

Today, despite Government net-zero targets and policymakers heralding a green energy revolution – one in which the North East is uniquely placed to play a leading role – similar questions are being asked once again.

Uncertainty over alternative fuels, the scale of infrastructure required, regulatory clarity and commercial viability has fuelled scepticism, compounded by political volatility and an unsettled global economic landscape.

Here, in the second of an exclusive roundtable series hosted by global marine insurer NorthStandard alongside multi-platform publisher NET, regional leaders examine how the maritime sector is navigating the transition to greener energy, and the role the region can play in turning uncertainty into opportunity.

What practical steps are being taken to enable a safe and commercially viable energy transition – and where can progress be made?

From the Offshore Renewable Energy Catapult in Blyth to the Tyne Clean Energy Park at Port of Tyne and Net Zero Teesside Power at Teesworks, the North East has pinned its colours firmly to the green energy mast.

Home to a growing concentration of businesses, public bodies and research organisations driving decarbonisation, the region is increasingly positioning itself not just as a participant in the race to net-zero, but as one of its most credible standard-bearers.

Against that backdrop, roundtable members outlined the practical steps already being taken to support decarbonisation, as well as the action required to turn intent into delivery.



NorthStandard's Tyneside headquarters

Kate Kwiatkowska, head of sustainability at Tyneside-headquartered NorthStandard, which provides protection and indemnity cover for one-in-five commercial ocean-going vessels across the globe, highlighted the role insurance and risk-sharing can play in enabling investment in low-carbon technologies.

She said: “Providing insurance cover for low-carbon maritime assets is one of the most important things we can do – that safety net is critical to helping new technologies and projects move forward.”

Kate also stressed that meaningful progress does not solely rely on new vessels or fuels, arguing efficiency gains across existing fleets can deliver immediate emissions reductions.

She added: “Given the long lifespan of vessels, there’s a lot that can be done in the interim.

“Through initiatives like the Blue Visby Consortium, sailing at more efficient speeds and arriving just in time for berth availability can make a real difference.”

The focus on efficiency was echoed by Thomas Wildsmith, head of commercial at the Blyth-based Offshore Renewable Energy Catapult.

He said: “A huge amount of our focus is on improving reliability and efficiency – reducing vessel time, improving installation processes and extending the life of components and turbines.

“If we can operate more reliably and plan maintenance more intelligently, we can significantly cut offshore hours, costs and emissions over the full life of a project.”

Thomas also highlighted the growing use of digital tools and data-led approaches to optimise operations and maintenance over the often 30-year lifespan of offshore assets.

He added: “We’re increasingly moving towards maintenance only when it’s needed, rather than fixed schedules – and



with artificial intelligence emerging, there's real scope to further reduce offshore intervention and improve long-term performance."

Brendan Hayward, joint managing director at offshore wind engineering firm Osbit, which last year opened a Port of Blyth base, highlighted how engineering design is already delivering tangible commercial and environmental gains.

He said: "The biggest impact we can have is through the equipment we design and deliver.

"In some cases, we've saved around 60 days of vessel time offshore on a single project, which has a huge effect on cost, risk and sustainability.

"Just two export projects last year put around £30 million into the local supply chain.

"That flows directly into manufacturing jobs and long-term capacity, and shows how these projects can create real value well beyond a single site."

Derek Christie, Siemens Energy government affairs – Scotland and UK sites, pointed to rapid technological progress that is already reshaping how offshore projects are delivered.

He said: "Customers are asking for reduced vessel time, shorter installation windows and safer operations.

"In offshore wind, particularly floating wind, we're now seeing solutions that can fundamentally change how projects are delivered.

"With developments like SpecTRONnx66 – our new 66kV wet-mate subsea connector – turbines could be assembled at port, towed out, connected and commissioned without the need for specialist jack-up vessels.

"That removes a huge amount of risk.

"It may cost more upfront, but it becomes significantly cheaper over the lifetime of a project."

Derek also pointed to growing momentum behind hydrogen, including Siemens Energy's partnership with GeoPura to help deploy

hydrogen-powered alternatives to diesel.

He added: "Production and infrastructure still need to scale, but we're starting to see how hydrogen can replace diesel in certain cases and deliver meaningful emissions reductions."

Ross Lowrie, head of clean energy and environment at the North East Combined Authority, said these developments are helping lay foundations for a "just transition" rooted in jobs and industry.

He said: "Success for the North East looks like busy ports, good jobs and vibrant industries – with around 25,000 new green jobs alongside the 25,000 that already exist.

"And those jobs won't all be offshore wind technicians.

"A green job could be in manufacturing, logistics, fuels or professional services; it's about transitioning whole industries and supply chains, not just individual roles."

Citing the Combined Authority's local growth plan, Ross described clean energy and maritime industries as the region's "number one growth opportunity".

He added: "There really isn't an alternative that offers the same scale or long-term potential."

Ross' view was echoed by Dr Sarah Green, chief executive at Newcastle Gateshead Initiative, who said the region's challenge is visibility, rather than capability.

She said: "The North East has the highest concentration of energy-related companies of any English region, so we start from a position of real strength.

"The task now is making sure that story cuts through nationally and internationally.

"We need to bring more of the value chain here, work closely with our universities and keep putting eyes on what's happening in the region.

"The credentials are here – and they're genuinely world-class."



Brendan Hayward, joint managing director at Osbit

What operational, regulatory and safety barriers are holding maritime decarbonisation back?

In 2015, when 195 parties including the US and China signed the landmark Paris Agreement, decarbonisation appeared not only desirable but an existential necessity.

A decade on, and concerns around cost, competitiveness and energy security – compounded by political volatility and global economic uncertainty – have begun to erode that consensus.

Nowhere has this been more apparent than in maritime, starkly underlined last autumn when negotiations at the International Maritime Organization broke down and the long-anticipated Net-Zero Framework, intended to introduce a global fuel standard to reduce emissions, failed to materialise amid deepening discord between member states.

Helen Barden, director of external affairs at NorthStandard, reflected on an increasingly complex policy landscape, arguing that while the direction of travel is clear, regulation has yet to catch up.

She said: “The industry knows it needs to decarbonise, but we still don’t have the right global framework in place to drive that transition.

“International shipping depends on a level playing field, and without clear rules from the International Maritime Organization, it becomes very difficult for shipowners to make long-term investment decisions.

“There were some fundamental gaps in the framework, but that also creates an opportunity for policymakers and industry to work together to get it right next time.”

Beyond regulation, Helen highlighted the scale of the challenge around alternative fuels, both in terms of supply and safety.

She said: “Global production of green methanol and green ammonia is nowhere near what would be required for shipping to reach net-zero.

“We are a very long way from where we need to be, not just in terms of fuel supply and infrastructure, but also when it comes to safety, training and ensuring crews are properly equipped to handle these new fuels.”

Sophie Pollard, partner at international law firm Hill Dickinson, whose office portfolio includes a Newcastle base, said regulatory clarity is critical in guiding investment and accelerating the adoption of alternative fuels.

She said: “Regulation gives shipowners, insurers and investors confidence over which fuels are likely to lead the transition.

“That clarity determines not only what vessels are built, but where capital flows into supporting infrastructure.”



John Duns, director and joint owner of NET, who chaired the roundtable

And Sophie stressed the need for wider regional and state-backed support.

She added: “Some projects are moving ahead, but to unlock broader uptake we need regions and governments to invest in infrastructure that allows these fuels to be used at scale.”

The question as to which fuel should underpin the maritime energy transition was one that all roundtable members were quick to acknowledge, as the sector continues to rely heavily on oil and gas.

Ed Davies, chief strategy officer at NorthStandard, said the maritime sector has navigated previous transitions, but under far more certain conditions.

He said: “Shipping has adapted before – from sail to coal to diesel – but at each of those points, the economics made sense and the supply was known.

“This time, that certainty isn’t there.

“The technology is still emerging, the supply chains aren’t established, and the economics don’t yet drive the transition in the same way.”

Derek reinforced the point, citing the example of CalMac, the Scottish ferry operator serving the west coast islands, which despite operating on fixed routes has struggled to move away from conventional fuels.

He said: “CalMac is a very unique case.

“They know exactly where their ferries are going, when they’re going and how they’re operating – it’s as controlled an environment as you could hope for.

“And yet, even with Government involvement and everything in place to make the transition, the new ferries are still running on diesel because the alternative fuel simply isn’t accessible at scale.”

Chris Kelsey, public affairs manager at the North East Chamber of Commerce, pointed to the

structural challenges holding back investment in alternative fuels, particularly the absence of a globally aligned framework.

He said: “The elephant in the room is that international shipping emissions don’t sit neatly on national net-zero balance sheets.

“Without that global alignment, it’s very difficult to justify the scale of investment needed in new vessels and fuel infrastructure.”

Chris also cautioned against expecting a single solution.

He added: “There is no magic wand.

“Unlike previous transitions, there isn’t one technology that immediately makes economic sense, which is why incentives, infrastructure and coordination are so important.”

How do we build the financial and skills capacity needed to make the maritime energy transition commercially viable?

Momentum behind the region’s green energy ambitions was underscored just days before the roundtable at the Invest North East: Energy & Innovation summit in Newcastle, which brought together global investors, developers and public leaders to showcase the North East’s strengths across offshore wind, ports, innovation, finance and skills.

That intent was formalised through the signing of the North East Ports Partnership by North East mayor Kim McGuinness and the region’s ports and airport, alongside the announcement of a £15 million programme to deliver specialist green energy training centres at Blyth and Wallsend.

With ambition and alignment increasingly clear, discussion turned to the harder test of delivery, and whether the region has the financial capacity and skills base to turn opportunity into

reality.

Ross stressed the importance of taking practical, investable “baby steps” that build confidence and unlock wider capital flows.

He said: “We are where we are because we’ve set off on journeys without knowing exactly where they would take us.

“Solar without subsidy and offshore wind becoming one of the cheapest sources of energy would have been unthinkable 20 years ago – but costs came down because we started and scaled.”

Drawing on the region’s industrial heritage, Ross argued uncertainty shouldn’t be a reason for inertia.

He said: “If you look back to Craggside, Lord Armstrong didn’t install the world’s first hydroelectric turbine because it made immediate economic sense.

“Not knowing exactly how costs will fall, or which fuels will dominate, shouldn’t stop us heading out on the journey.”

Ross also emphasised the need for long-term thinking on skills.

He added: “We often focus on 16 to 18-year-olds, but we need to be talking to ten-year-olds because the people who will deliver this transition are still in school.”

Thomas highlighted the importance of anticipating future skills needs to ensure the region is prepared for emerging roles.

He said: “One of the biggest opportunities is understanding what roles we’ll need in five to ten years’ time, and working with education providers to build the right skills in the right places.”

Thomas also stressed the need for closer alignment with emerging technologies.



Helen Barden, director of external affairs at NorthStandard



Left, Kate Kwiatkowska, head of sustainability at NorthStandard, and right, Ross Lowrie, head of clean energy and environment at the North East Combined Authority

He added: “For the green maritime transition, we’re still at an early stage, but we understand the building blocks.

“The challenge is making sure skills, innovation and design move together.

“If you don’t build that top end, you don’t create the jobs of the future.”

Brendan highlighted Osbit’s growing challenge of accessing skilled engineers, arguing capacity constraints – rather than lack of opportunity – are now one of the biggest brakes on growth.

He said: “We’re in a narrow niche.

“We need problem-solvers who are happy getting their overalls on, getting on the back deck of a vessel and really understanding what’s required offshore.

“We’ve taken on 90 people in the last 12 months, but we’d be doing so much more if we had more people.

“That’s why we’ve opened offices in Amsterdam and Edinburgh – not because we want to move away from the North East, but because we’re struggling to find the skills we need.”

Helen emphasised the need to better align risk, finance and insurance with the realities of maritime decarbonisation.

She said: “These new fuels present new risks, and without the right global liability framework in place, it becomes very difficult to price that risk in a way that is commercial and competitive.

“If liability is properly channelled, it allows shipowners to limit their exposure and gives insurers the confidence to price premiums fairly, which is critical if these fuels are going to be adopted at scale.”

Sophie stressed the role of contractual clarity in managing risk across the maritime value chain.

She said: “If you’re an owner, charterer or port operator, it’s about clearly allocating risk and responsibility.

“That means being explicit in contracts about who is accountable for emissions, penalties and benefits, so there’s certainty about liability.”

Sophie also pointed to wider challenges around perception, arguing that the breadth and value of the maritime sector is still underestimated.

“The maritime sector is such a broad industry, but many people don’t fully appreciate what it does.

“If we were better at extolling the virtues of working in the maritime sector – whether in engineering, insurance or other disciplines – we’d attract more people and see greater confidence and investment.”

What will success look like for the North East by 2030 and 2040?

As the discussion closed, attention shifted from



Thomas Wildsmith, head of commercial at the Offshore Renewable Energy Catapult

barriers and delivery to outcomes, as roundtable members considered what success would look like for the region in the decades ahead.

For Kate, the clearest marker would be tangible progress on the ground, particularly at the region’s ports.

She said: “Success would be seeing the opportunities we’ve discussed materialise in practice.

“It’s about having the port infrastructure in place to open up green corridors and seeing net-zero vessels calling in the North East.”

Chris widened the lens, arguing success would also be reflected in how the region is recognised globally.

He said: “Success is the North East leading the charge in greener maritime, with the region known internationally for clean, sustainable energy, rather than just traditional offshore activity.

“That has to go hand-in-hand with creating good-quality, sustainable jobs for people across the region.”

Ed stressed the importance of confidence and collaboration in realising that ambition, arguing the region has the scale and expertise to “punch above its weight”.

He said: “There are fast-growing areas, like alternative fuel vessels and offshore wind, where there’s real opportunity to forge our own path.

“In a space this complex and uncertain, partnerships really matter.

“By working together across the region, we can keep momentum going.”

Sarah set out a vision of the North East as a globally recognised base for green maritime leadership.

She said: “I’d like the region to be one of a handful of places around the world that’s known as somewhere to headquarter green maritime businesses.

“There’s a real opportunity for someone to leave school, build a career and reach the top of their profession in the maritime sector while staying in the North East.

She added: “I want businesses here that have sufficient gravitas to attract talent from anywhere in the world, with the pull and magnetism to inspire real pride in what the region is achieving.”

This is the second in a series of three roundtable discussions to be hosted by NET in partnership with NorthStandard. To read the first – Exporting a region to the world – [click here](#).