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CONSULTATION: Building the North Sea's Energy Future

Response by the Society of Maritime Industries

Questions

1A: What role can government play to ensure that local workers can benefit from the growth of these new energy sectors?

The Government has a crucial role in ensuring that local workers, particularly those in coastal communities with historically higher levels of socio-economic deprivation, benefit from the growth of new energy sectors. Key actions include:

- **Investing in critical infrastructure**, such as ports and shipyards, to support the maritime engineering, science, and technology industries that underpin offshore energy development.
    - The creation of localised R&D Centres of Excellence in offshore energy systems in coastal communities, which can be linked to national academic and private sector organisations, could be key in achieving this.
- **Funding and facilitating specialist skills development**, particularly for roles in offshore wind farm construction, maintenance, and marine autonomous systems.
- **Mandating minimum levels of local content and UK supply chain participation, along with clear and consistent definitions,** through licensing and auction frameworks to maximise domestic economic benefits.
- **Providing long-term policy certainty** to de-risk private sector investment in both workforce development and physical facilities.
- **Support for Small and Medium Enterprises (SMEs)** to support the creation of training and employment opportunities, along with local infrastructure investment to support workers who commute to coastal areas.

To further improve local employability and workforce mobility across energy sub-sectors, the Government should:

- **Align industry standards and certifications** across marine, renewables, nuclear, oil and gas, and infrastructure sectors (e.g. rigging, working at height, medical). This would reduce employment costs, improve workforce flexibility, and enable clearer career progression.
- **Develop coherent career pathways** in emerging roles within marine renewables, comparable to those already established in oil, gas, and marine sectors.
- **Prioritise core technical skills** (e.g. electrical, mechanical) in funding decisions over more generalist courses.
- **Tie course funding to local job opportunities**, ensuring that public investment in training responds to real employment demand rather than abstract course popularity, to attract new talent and upskill existing professionals.

1B: In addition to the investments in clean energy industries outlined in this section, are there any other areas you think should be targeted for investment?

Yes. To ensure the UK captures long-term socio-economic value from the energy transition, investment must extend beyond the core clean energy sectors to include enabling infrastructure and strategic capabilities:

- **Infrastructure and port upgrades**, particularly to support floating wind, hydrogen production, and decommissioning activities, as well as expanding the UK's capacity to drydock and maintain vessels operating in UK waters.
- **Specialist vessel design and build capacity**, ensuring the UK has sovereign capabilities in developing vessels required for emerging offshore energy operations.
- **Digitalisation, robotics, and automation in maritime operations**, enabling remote inspection, predictive maintenance, and increased operational efficiency.
- **Marine environmental monitoring and data systems**, which are vital for meeting biodiversity commitments and ESG expectations in offshore developments.

These areas offer both domestic value and potential for high-value, exportable technologies.

Energy Transition as a System

Crucially, the energy transition must be understood and supported as a system, not as isolated interventions. Spot investments in individual ports or regions will not deliver sustainable benefits unless integrated into a broader, strategic framework. For example:

- **Port investment requires a sales pipeline** to attract private capital. If seabed leasing were staggered in the Celtic Sea, for instance, ports like Port Talbot and Pembroke could demonstrate longer-term demand to justify infrastructure upgrades.
- **Current UK policy silos** – seabed leasing, grid access, environmental consenting, and Contracts for Difference (CfDs) – **need to be better integrated**. In isolation, they hinder long-term development; coordinated policy would provide the certainty industry needs to invest.
- **Other nations, like Norway, succeed by aligning infrastructure spend with supply chain development**, understanding where value lies (e.g. in design and equipment) and ensuring a route to market.

Enabling UK Supply Chain Growth

A more coordinated approach would enable the use of financial and industrial tools to grow UK supply chain capability and reduce over-reliance on foreign direct investment (FDI). While FDI can generate jobs, much of the high-value work (e.g. turbine blade design, advanced materials) often remains offshore. For instance, in the Hull blade factory, key inputs such as resin and matting are imported.

By nurturing UK-based design and high-value manufacturing capabilities, the Government can ensure the UK captures a greater share of the economic value.

Recognising Commercial Realities

The discussion around "clusters" must also reflect commercial reality. While regional hubs exist—subsea in Aberdeen, marine and workboat services on the south coast, cables in the North East, and fabrication on Teesside—many key players (e.g. Rolls-Royce, GE, digital innovators) are based inland.

- Companies grow by winning work across locations, not solely by being in a cluster. They may employ people locally, but commercial relevance comes first.
- The UK's industrial strategy must reflect how businesses operate and scale, through pipelines of work and commercial competitiveness, not solely through geography.

1C: What opportunities do you foresee for the oil and gas industry to invest into clean energy?

SMI members identify several key areas where the oil and gas industry can play a significant role in supporting and investing in clean energy sectors:

- **Vessel reconfiguration** for offshore wind support services, including foundation installation and subsea cable laying.
- **Deployment of ROUVs and AUVs** in subsea inspection, maintenance, and monitoring—technologies already well established in oil and gas and highly transferable to hydrogen infrastructure and carbon capture, utilisation and storage (CCUS) projects.
- **Development of cross-sector training facilities and academies**, drawing on existing expertise to equip the workforce for emerging clean energy roles.
- **Engagement in decommissioning supply chains**, particularly where infrastructure can be repurposed for clean energy operations such as offshore hydrogen or floating wind.

There is substantial potential for the oil and gas sector's expertise in procurement best practice, subsea engineering, operations, and systems integration to be redeployed into clean energy projects. Engineering firms with robust balance sheets and technical depth are well-placed to diversify—but doing so requires building a credible track record in clean energy, as well as visibility on forward order books to justify any investment or future refocus.

This transition is not automatic. Clean energy markets operate differently and have different commercial dynamics. While oil and gas companies bring capital and capability, **winning contracts in renewables often requires sector-specific experience and credentials**. This means companies will need to operate in both spaces simultaneously, using revenues and margins from oil and gas to invest in clean energy capability and credibility.

Therefore, **continued support for both the oil and gas and clean energy sectors is essential** during this transition period. This dual-track approach enables established companies to pivot into new markets while maintaining the skills, jobs, and investment pipelines that underpin the broader energy system.

1D: Which locations offer the best opportunities for investment in clean energy industries?

The UK has several established maritime and offshore oil and gas hubs that are well-positioned for repurposing to anchor future investment in clean energy industries. These include:

- **Aberdeen and North East Scotland** – a global centre for offshore engineering with emerging strengths in offshore wind, hydrogen, CCUS, and a well-developed skills and innovation ecosystem.
- **Teesside and the Humber** – home to major industrial clusters and equipped for large-scale fabrication, hydrogen production, CCUS, and port logistics.

- **Great Yarmouth and Lowestoft** – long-standing bases for offshore wind construction and operations & maintenance (O&M), serving the southern North Sea.
- **Firth of Forth and Leith** – strategically placed for floating wind deployment and large-scale fabrication activities.
- **Southampton and the Solent** – a leading centre for maritime innovation, including clean fuels, vessel design, and workboat services.

These regions combine physical infrastructure with existing expertise in marine and energy technologies. They are natural catalysts for regional growth, attracting investment, creating skilled jobs, and supporting local supply chains.

It's also important to highlight that **clean energy innovation is not confined to coastal areas**. Inland regions play a vital role, particularly in:

- **Digital and data services**, which support automation, monitoring, and predictive maintenance.
- **Composites and advanced manufacturing**, essential for turbines, vessels, and infrastructure.
- **Systems integration and design engineering**, often led by companies based in the Midlands and other non-coastal areas.

A successful national strategy must recognise both the strengths of established coastal hubs and the contribution of inland centres of excellence. By doing so, the UK can ensure the benefits of the energy transition are widely distributed and fully realised.

2: What, if any, additional measures could help the oil and gas workforce to transition into a) clean energy and b) other industrial strategy sectors?

To support a just transition for the oil and gas workforce into clean energy and other industrial sectors, the Government and industry must focus on **practical, targeted, and flexible measures**. Key recommendations include:

- **Cross-sector training frameworks** to streamline certification and accreditation, enabling easier movement between oil and gas, offshore wind, CCUS, hydrogen, and marine sectors.
    - This includes mutual recognition of qualifications and portable safety, rigging, and technical standards across subsea, energy, and maritime domains.
- **Skills guarantees and retraining stipends**, particularly for contractors and SMEs, who often face the greatest barriers to re-skilling due to cost, lack of time, or insecure work.
- **Employer-aligned further education**: Course design and funding should be driven by real employer demand and co-created with industry, rather than based solely on institutional offerings or student interest.
- **Geographical mobility support**, such as relocation grants or travel allowances, to reduce regional access barriers and allow skilled workers to take up opportunities in growth areas.
- **Recognition of military and ex-service skills**, especially in technical, engineering, and maritime roles, where discipline-specific experience maps well to offshore energy requirements.

Above all, the system must be **less fragmented** and easier to navigate. That means:

- **Streamlining employment and onboarding costs** across sectors, to make hiring transitioning workers economically viable for employers.

- **Creating pathways that allow flexibility**, enabling workers to move back and forth between sectors (e.g., oil and gas and renewables) as project cycles demand.

A successful transition strategy should reflect the r**eality of how people work and companies operate**, not just create new training offers, but make it easier and more cost-effective for workers and employers to engage with them.

3A: What support is required for oil and gas workers to transition into low carbon sectors that align with the UK's longer-term environmental and economic ambitions, as proposed within this consultation? In your response, please consider the transition through different lenses – for example, by location (domestically and internationally) or by demographic.

Support should be tailored by region and demographic. This includes:

- Regional transition hubs with job matching, training, and career counselling.
- On-the-job training programmes, funded by industry and government, allowing workers to move into new sectors with minimal income disruption.
- Upskilling schemes for younger workers to avoid talent drain, and early retirement or flexible support for older workers.
- International certification alignment to enable global mobility of UK-qualified offshore workers.
- Global partnerships with countries that are leading in clean energy to facilitate knowledge exchange and training opportunities.
- Integrating clean energy subjects into the school curriculum, offering scholarships for HE in renewable energy fields and partnering with industry to offer funded PhDs in clean energy.
    - Frazer Nash is one of the members of N0MES, a programme led by Liverpool University and Liverpool John Moores University to deliver the skills needed in the clean energy maritime transition.

3B: How do you think we should approach measuring the transition of workers from the oil and gas sector to low-carbon industries? Do you have a view on what metrics we could be using to measure the transition of workers from the oil and gas sector to low carbon sectors?

The Government should adopt a comprehensive and transparent approach to measuring workforce transition, including both quantitative and qualitative indicators, published annually to monitor progress and inform policy.

Recommended metrics include:

- **Number of workers redeployed**, broken down by:
    - Sector (e.g. offshore wind, CCUS, hydrogen, nuclear)
    - Region (to reflect geographical spread and regional development)
- **Diversity and demographics of transitioning workers**, to ensure an inclusive transition across age, gender, ethnicity, and employment status (e.g. contractors vs. permanent staff).
- **Number of SMEs supported** to retrain or upskill staff for clean energy sectors.
- **Retention and progression rates of transitioned workers** in their new sectors, helping to gauge the long-term sustainability of reskilling efforts.

- **Job quality indicators**, such as:
    - Wage parity with former roles
    - Career development opportunities
    - Job satisfaction

Systemic transition metrics should also include:

- **Progress on streamlining certification and training requirements** across sectors (e.g. mutual recognition of standards between oil and gas, renewables, and nuclear), to avoid artificial cost and complexity barriers.
- **Integration of public programmes**, tracking how well skills and workforce initiatives across different energy sub-sectors (nuclear, renewables, oil and gas) are aligned, coordinated, and mutually reinforcing.

Tracking should be **co-designed with industry and workforce representatives** to ensure relevance and accuracy. Done well, this will not only inform better policymaking but also build trust among workers and employers navigating the transition.

3C: How would you define a good work opportunity within the low-carbon economy? In your response, please consider fair remuneration, the role of trade unions and creating jobs that are inclusive and contracted with financial security.

A good work opportunity would include:

- Competitive pay and benefits matching offshore oil and gas standards.
- Permanent contracts or long-term project continuity.
- Clear training and promotion pathways.

3D: What, if any, other key occupations not already listed could oil and gas workers transition into that you think are important to supporting the transition to a low carbon economy?

Oil and gas workers possess a wide range of transferable skills that are highly valuable in the low-carbon economy. In addition to roles already identified, the following **occupations and job categories** are key to supporting the transition:

Offshore and Marine Operations

- **Marine and offshore surveyors**, including environmental, geophysical, and geotechnical specialisms.
- **Subsea robotics and ROUV technicians**, essential for inspection and maintenance in offshore wind, hydrogen, and CCUS.
- **Marine operations coordinators** and **offshore logistics managers**, ensuring safe and efficient offshore construction and maintenance.
- **Vessel crew** (SOVs, CTVs, Jack Up Vessels) and **offshore wind farm maintenance staff**, including turbine technicians and jack-up barge operators.

Engineering and Technical Roles

- **Operational technicians and engineers**, particularly in electrical, mechanical, and control systems.
- **Asset management systems engineers**, supporting performance monitoring, predictive maintenance, and lifecycle optimisation.
- **Naval architects** and **maritime systems engineers**, especially as floating wind and hydrogen vessels scale up.
- **Composite specialists** and **equipment designers**, including for blades, subsea structures, and vessel retrofitting.

Digital and Remote Operations

- **Digital twin engineers**, supporting virtual modelling and systems integration.
- **Data analysts and simulation specialists**, to support decision-making across offshore operations and infrastructure planning.
- **Software engineers and remote operations support staff**, especially in automation, digital inspection, and AI-enabled maintenance.

Onshore Maritime Support

- **Maritime management professionals**, providing commercial, regulatory, and operational support across supply chains.
- **Shore-based planning and coordination staff**, who play a critical role in linking offshore activities with port, logistics, and fabrication facilities.

Broader Industrial Strategy Sectors

Many of these roles extend into **Tier 2-4 supply chain companies**, including those in:

- Advanced manufacturing
- Materials science (e.g. composites)
- Precision engineering
- Systems integration and design consultancies

These roles reflect the reality that **a large portion of the clean energy workforce is not located on the quayside** – and that talent from oil and gas can be redeployed across a broad range of inland and coastal opportunities.

3E: Do you think the UK has a sufficient skills base to underpin the transition? What role will the oil and gas sector play in the availability of critical skills?

The UK has a strong **foundational skills base**, particularly in offshore engineering, marine operations, and project delivery. However, clear gaps are emerging in areas critical to the energy transition, including:

- **Floating wind system design and engineering**
- **Hydrogen production, storage, and system integration**
- **Digital, remote, and AI-enabled marine operations and maintenance**

The oil and gas sector represents a vital reservoir of high-value skills, including subsea engineering, logistics, control systems, and asset management. These competencies are highly transferable, but a successful transition requires:

- **Targeted retraining and upskilling** support
- **Recognition of existing qualifications and experience**
- **Financial and institutional support**, especially for SMEs and contractors

To make the most of the UK's talent base, it is essential to **align skill requirements across sectors**, recognising that many of the distinctions between oil and gas, renewables, and broader infrastructure roles are artificial. The same core capabilities often apply across subsectors, including:

- Lifting and rigging
- Health and safety
- Marine operations
- Systems engineering
- Inspection and maintenance

Streamlining certification, qualifications, and promotion pathways will help workers move more easily between sectors and enable companies, especially SMEs, to work flexibly across energy and infrastructure markets. This, in turn, supports:

- **More consistent employment opportunities**
- **Greater investment in workforce development**
- **Sustainable growth in domestic capability**

With the right policy, funding, and coordination, the UK can capitalise on its existing workforce strengths and build the skills needed for long-term success in the low-carbon economy.

4A: How can government and industry develop the skills passport into a meaningful and effective mechanism for workers to transition from oil and gas into other industries? What is the correct role for industry and government to make this happen?

To be effective, the **skills passport** must be more than a list of past qualifications. It should be a **dynamic, cross-sector tool** that helps workers **demonstrate transferable competencies** and allows employers to **quickly identify relevant skills** for current and future roles.

Key features must include:

- **Cross-sector recognition** across offshore wind, oil and gas, marine, hydrogen, CCUS, and nuclear industries, supported by aligned standards and shared frameworks.
- A **centralised, secure, and employer-accessible digital platform**, hosted independently but backed by the Government, that allows workers to upload qualifications, training, and on-the-job experience in a format that is verifiable and recognised by employers.
- **Mandated participation** as a condition of access to public clean energy funding, grants, and apprenticeship levy schemes, ensuring widespread industry adoption.

Steps to implementation should entail:

- **Establish a neutral, expert-led delivery body**, independent of day-to-day political cycles and with deep understanding of skills frameworks across energy and infrastructure. This body should:
    - Curate a "batting list" of priority qualifications and sectors to align.
    - Lead stakeholder engagement with industry, SMEs, training providers, and trade unions.
    - Develop governance, data standards, and implementation pathways.
- **Draw on best practice from international models**, such as **Norway** and **Denmark**.
- **Industry's role** is to:
    - Define and validate transferable skills and role profiles.
    - Actively contribute to the design of cross-sector standards.
    - Promote and integrate the skills passport into recruitment and HR systems.
- **Government's role** is to:
    - Set the regulatory and funding framework.
    - Provide start-up funding and enforce uptake through policy levers (e.g. CfD, AR subsidies).
    - Monitor uptake, equity of access, and effectiveness.

The skills passport should ultimately **reduce friction in workforce mobility**, support SME participation, and increase employer confidence in recruiting from outside their traditional sectors, creating a more resilient and agile UK energy workforce.

4B: What can we do to further support specific local communities that are heavily reliant on oil and gas through the transition?

To ensure a just transition, targeted support is needed for communities historically reliant on oil and gas. This requires **anchoring new opportunities locally**, providing **clear commercial pathways**, and ensuring these areas are not left behind as national energy policy shifts.

Key measures include:

- **Anchor major clean energy investments** in these regions such as fabrication yards, operations centres, or control hubs so that economic activity and skilled employment are retained locally.
- **Support the local supply chain ecosystem** through:
    - Regional supply chain directories
    - Meet-the-buyer events
    - Access to procurement pipelines for clean energy developers
- **Extend Freeport and Innovation Zone designations** to key maritime transition sites, enabling tax incentives, streamlined planning, and enhanced skills funding.

Strategic considerations:

- **Oil and gas funding must not be withdrawn prematurely**. Many communities still depend on this sector for economic stability, and clean energy supply chains are not yet mature or scaled enough to replace that activity. Continued support across both sectors is essential during the transition phase.
- **Commercial pathways must be developed, not assumed**. Many Tier 1 supply chain players in offshore wind and hydrogen are foreign-owned or based outside the UK. Without a clear strategy, UK-based SMEs and regional firms risk being excluded from growth markets.

- **A dedicated regional transition office or hub** could coordinate this effort, taking inspiration from the original UK oil and gas office in Glasgow in the 1970s, which successfully developed local capacity, investment strategies, and workforce planning.

The transition must be **realistic, commercially grounded, and regionally responsive**. Communities will buy into the future when they can see tangible opportunities on the ground through work, contracts, and long-term investment.

4C: Are you aware of any examples of successful collaborations between regions or sectors that could serve as a model for facilitating worker transitions?

The Ruhr region in Germany offers a compelling example of successful collaboration between regions and sectors to facilitate worker transitions from a coal, iron, and steel-based economy to a knowledge-driven one. This transformation, spanning several decades, was marked by strategic planning, substantial investment, and inclusive governance.

Key Elements of the Ruhr's Transition

- **Strategic Planning and Investment:** The Ruhr Development Program (1968–1973) initiated the region's structural change by focusing on infrastructure development, environmental restoration, and the expansion of educational institutions. Subsequent initiatives, like the Future Initiative for Coal and Steel Regions in 1987, emphasized technological innovation and competitiveness.
- **Economic Diversification:** As traditional industries declined, the Ruhr region successfully transitioned to a service-oriented economy. Between 1960 and 2001, while 839,000 production jobs were lost, approximately 801,000 service sector jobs were created.
- **Education and Research Development:** The establishment and expansion of universities and research institutions played a crucial role in retraining the workforce and fostering innovation. Cities like Dortmund became hubs for technology and research, hosting numerous IT companies and research centres.
- **Inclusive Governance and Social Dialogue:** The transition was supported by strong social partnerships, including labour unions, employers, and government entities. This collaborative approach ensured that policies were responsive to the needs of workers and communities.
- **Repurposing Industrial Sites**: Former industrial sites were transformed into cultural and economic centres. For instance, the Ewald Colliery was redeveloped into a business and technology park, creating new employment opportunities and preserving industrial heritage.

Lessons for Facilitating Worker Transitions

- **Proactive and Long-Term Planning:** Initiating structural changes before economic decline becomes critical allows for smoother transitions.
- **Investment in Education and Training:** Developing educational infrastructure and retraining programs equips the workforce with skills relevant to emerging industries.
- **Stakeholder Engagement:** Inclusive governance involving all stakeholders ensures that transition policies are equitable and effective.
- **Economic Diversification:** Encouraging the growth of diverse industries reduces dependency on a single sector and enhances economic resilience.

The Ruhr region's experience demonstrates that with comprehensive planning, investment, and collaboration, regions can successfully navigate the challenges of economic transition and provide sustainable employment opportunities for their workforce.

5B: What, if any, additional barriers not already mentioned in this section are you aware of?

SMI believes that the UK will not be able to increase the share of UK-based vessel owners and operators (with all the consequent employment opportunities) without taking a more proactive approach toward supporting material ownership within the UK through local content requirements and the UK flag.

6: How can we enhance diversity within the sector? In your response, please consider the role of external organisations (such as employers and trade unions) and detail which group or persons this intervention would benefit.

The Government should work with cross-industry organisations such as Maritime UK to promote existing careers and outreach programmes aimed at attracting, training and retraining workers into the maritime sector, which plays a critical role in supporting the UK's mission to become a global clean energy superpower in offshore renewables.

Inclusive hiring practices entail:

- **Inclusive job descriptions and bias-free recruitment processes** (e.g. blind recruitment) to ensure fair evaluation of candidates. Actively seek out diverse talent pools by partnering with organisations that support underrepresented groups.
- **Flexible Work Arrangements**, such as remote work and flexible hours, to accommodate the diverse needs of employees. Implement family-friendly policies, such as parental leave and childcare support, to support employees with caregiving responsibilities.
- **Partner with industry organisations and advocacy groups** that promote diversity and inclusion in the sector.

7A: Which parts of the oil and gas industry supply chain do you think will be most affected by the transition, and what impacts will it have on the workers within those businesses?

The **upstream supply chain** is likely to be most affected by the energy transition, particularly:

- **Fabrication yards** that rely on oil and gas infrastructure contracts.
- **Vessel operators** providing marine services to offshore installations.
- **Subsea services companies**, including ROV operators and engineering specialists.
- **Offshore construction firms** and **specialist consultancies** supporting project delivery and design.

These businesses, many of which are based in **Scotland and the North East of England**, are highly exposed to fluctuations in oil and gas demand and may face **significant commercial disruption** as the market shifts toward clean energy. Without intervention, this could result in **revenue volatility,**

reduced contract volumes, job losses, or difficulty in entering new markets due to different procurement models and technical standards.

Impacts on Workers

Many workers have **transferable skills** in engineering, marine operations, logistics, and safety, but they often face:

- **Regulatory and certification hurdles** between sectors (e.g. safety standards, site access qualifications)
- **Different contracting structures** in offshore wind and hydrogen (e.g. shorter project lifecycles, fewer permanent offshore roles)
- **Reduced headcounts offshore** due to greater use of automation, remote monitoring, and digital tools in clean energy.

Workers will need **reskilling and upskilling opportunities** tailored to the operational and cultural realities of the new sectors. This must be accompanied by:

- Clear, government-backed pathways for recognition of existing skills.
- Investment in regional training facilities and digital platforms.
- Stronger coordination between government, industry bodies, and employers to provide predictable transition support.

Support for Companies

In addition to workforce measures, many companies will require **cash flow and commercialisation support** to diversify their offerings. Programmes such as Fit4Renewables and targeted innovation funding can help SMEs adjust business models, win clean energy contracts, and manage the shift in project timelines and margins.

A just transition will only succeed if supply chain businesses are **commercially viable** in the new system and if workers can see **real, supported pathways** into stable, meaningful roles.

7B: What potential barriers exist for current oil and gas supply chains to transition to alternative sectors?

A number of significant and interlinked barriers currently limit the ability of oil and gas supply chain businesses to transition into clean energy and other sectors. These include:

Lack of visibility on future pipelines

- **Inconsistent project timelines**, particularly in offshore wind, CCUS, and hydrogen, make it difficult for businesses to plan investment.
- The structure of **auction mechanisms**, such as Contracts for Difference (CfDs), often leads to “boom-and-bust” cycles that deter sustained capability development.

Regulatory fragmentation

- **Divergent regulations and certification requirements** across sectors (e.g. hydrogen, offshore wind, nuclear) make it harder for firms to pivot, especially SMEs.
- Even where technical skills are transferable, **formal barriers to entry** persist due to sector-specific standards and duplicated training requirements.

Misaligned procurement and contracting models

- Offshore wind and other clean energy sectors often rely on **fixed-price, high-risk contracts**, placing disproportionate risk on supply chain companies.
- This creates an environment where entities willing to accept the most un-managed risk will be awarded contracts, driving down overall investment down the supply chain and contributing to a higher amount of corporate financial distress in the medium term.
- In contrast, the oil and gas sector typically uses **more collaborative, risk-shared models**.
- As a result, many transitioning firms find themselves **priced out or excluded** from new markets where incumbents already operate to tight margins and timelines.

Access to finance

- SMEs face difficulties accessing **affordable finance to retool**, hire, or scale operations to meet new demands, particularly when lacking a renewable energy track record.
- Financial institutions often perceive clean energy supply chains as risky due to limited market maturity, lack of government support and protection mechanisms for UK entities in UK waters, and policy volatility.

Workforce redeployment challenges

- While core skills are transferable, there is often **no structured, sector-recognised route for redeployment**, and training pathways can be inconsistent or disconnected from actual job demand.
- The lack of formal recognition for prior experience increases both **costs and uncertainty** for workers and employers alike.

Fundamental business model differences

- The **utility-style model of offshore wind** (project-based, capex-heavy, low margin) contrasts significantly with the **longer-term OPEX revenue models of oil and gas**.
- This shift affects everything from staffing to cash flow, and requires companies to adopt **new commercial strategies and delivery models**, a transition that takes time and support.

Barriers to market entry

- Developers, funders, and Tier 1 contractors in clean energy tend to prefer suppliers with **established sector credentials** and the ability to meet tight price points.
- This creates a **credibility gap** for oil and gas suppliers seeking to diversify, even where they have relevant skills and capacity.

Oil and gas revenues remain essential in the short to medium term. They provide the **financial foundation and commercial runway** for supply chain companies to build experience, credibility, and capability in alternative sectors. Without a **phased transition**, many businesses risk being shut out of the clean energy supply chain altogether.

7C: What additional measures can we take to support these supply chains during the transition?

Local content provision and a system assigning higher value in contracting of UK-owned and UK-operated assets and businesses.

- **Long-term visibility on project pipelines**, including CCUS, floating wind, and hydrogen, so suppliers can invest with confidence.
- **Targeted funding for capability development** (e.g. floating wind mooring systems, subsea hydrogen infrastructure).
- **Standardised training and accreditation frameworks** to speed up worker redeployment across sectors.
- Reforming procurement models to **promote UK content** and reduce risk for SMEs.
- **Regional cluster support** to build local ecosystems of innovation and skills around key ports and manufacturing hubs.
- **Cross-sector innovation funding** to help companies adapt technologies and services for new markets.

7D: What are the current existing key strengths in the UK supply chains for these sectors?

The UK has several globally recognised strengths in its energy and maritime supply chains that provide a strong foundation for supporting the clean energy transition:

Maritime and Offshore Engineering Expertise

- The UK is a global leader in **subsea engineering, offshore construction, vessel design, and marine operations**, with deep expertise developed through decades of oil and gas activity.
- These skills are directly transferable to offshore wind, CCUS, hydrogen, and floating wind developments.

Innovation Ecosystems

- World-class institutions such as the Offshore Renewable Energy Catapult, alongside **regional innovation hubs in Aberdeen, Teesside, and the Solent**, drive cutting-edge R&D, technology transfer, and skills development.
- These ecosystems foster collaboration between SMEs, academia, and industry, positioning the UK as a hub for clean energy innovation.

Export-Ready SMEs

- Many UK-based SMEs, including Society of Maritime Industries (SMI) members, already **export advanced products and services globally**, from marine robotics to engineering consultancy and software.
- This international presence provides a launchpad for expanding clean energy exports and securing global project involvement.

Established Infrastructure

- The UK has significant physical assets, including:
    - **Deepwater ports and quaysides** suited to heavy lift and large component assembly.
    - **Fabrication yards** with capacity for renewable infrastructure.
    - **Decommissioned and active offshore platforms** that offer potential for repurposing or support operations.

Specialised Capabilities

- The UK has notable strengths in:
  - **Subsea services and marine management**
  - **Design engineering and naval architecture**
  - **Power cable manufacture and installation**
  - **Asset integrity, insurance, and offshore finance**

Tier 2 and Tier 3 Supply Chain Excellence

- UK companies are strong in **Tier 2 and Tier 3 roles**, including precision manufacturing, systems integration, and digital services.
- However, there is a **capability gap at the Tier 1/EPCI level**. Most renewable energy EPCIs with the necessary project track records are not UK-based, and they often bring established international supply chains with limited UK SME inclusion.

7E: Do you think that UK supply chain companies will be competitive in accessing growing clean energy sectors in the North Sea? What role can government play in supporting them?

The UK has the capabilities to be a leader in the North Sea and beyond, but it needs to **grow the number and scale of UK companies** with commercial and intellectual control. That requires a strategic, joined-up approach combining investment, industrial strategy, and export support.

To support competitiveness, the Government must take a strategic, long-term view and act across several key areas:

- **Provide long-term policy certainty**
  - Set out clear, sector-specific strategies and delivery plans (e.g. for floating wind, CCUS, and hydrogen).
  - Ensure predictable auction cycles and grid access frameworks to support investment in capacity and skills.
- **Mandate robust supply chain development plans**
  - Require developers to produce meaningful plans with clear UK content targets, and link these to CfD eligibility or licensing criteria.
  - Introduce stronger incentives or penalties to encourage real engagement with UK suppliers.
- **Invest in enabling infrastructure**
  - Prioritise port and fabrication upgrades, especially for floating wind, where current capacity is limited.
  - Ensure these assets are accessible to UK firms, not just multinationals with pre-existing global supply chains.
- **Support innovation and global market access**
  - Expand UK Export Finance and trade support focused on offshore energy technologies and services.
  - Fund innovation programmes to move SMEs up the value chain and develop globally competitive IP.
  - Promote UK capability abroad through trade missions and diplomatic support in new offshore energy markets.

7F: What key export opportunities do you anticipate will be open to the UK supply chain, as a result of the development of clean energy sectors in the North Sea?

The North Sea clean energy transition will boost UK expertise in:

- Digital asset monitoring, robotics, and remote operations.
- Subsea power cable systems
- Subsea moorings, and anchoring solutions
- Decommissioning services
- Marine design / management
- Professional services
- Specialist engineering
- Workboat design/operations

As these solutions are deployed domestically, UK firms will be better positioned to export to Europe, Asia-Pacific, and North America.

7G: Where do you see the main opportunities in a) offshore wind b) floating offshore wind, c) CCUS (T&S) d) hydrogen e) decommissioning for the oil and gas supply chain?

Offshore wind

Opportunities include vessel design and construction, offshore logistics, cable installation, foundations, and O&M services. UK companies can also lead in system integration and environmental monitoring.

Floating offshore wind

This is the most transformative opportunity. The UK supply chain can excel in mooring systems, dynamic cables, floating platform fabrication, tow-out logistics, and substation innovation.

CCUS (Transport & Storage)

There are major roles for pipeline and subsea infrastructure specialists, vessel operators for CO_2 shipping, and reservoir monitoring and data management.

Hydrogen

Opportunities include electrolyser deployment offshore, offshore pipeline repurposing, storage solutions, and the development of hydrogen-ready ports and bunkering infrastructure.

Decommissioning

The UK already has strong capability in this area. There is scope to lead in sustainable decommissioning techniques, asset repurposing (e.g. for hydrogen or carbon storage), and recycling infrastructure.

8: How can we improve our understanding of the interconnected basin, including its opportunities and risks? Do you have any evidence you can share about this?

Improving understanding of the North Sea basin requires a comprehensive, systems-based mapping of infrastructure, resources, logistics networks, and regulatory overlaps across energy sectors. This includes integration of oil and gas infrastructure, offshore renewables, CCUS sites, and emerging hydrogen hubs.

The UK should support:

- A **digital twin** of the North Sea to model interdependencies and assess future infrastructure scenarios.
- **Open data sharing protocols** between regulators, developers, and supply chain actors to support cross-sectoral planning.
- **Greater collaboration with North Sea neighbours** via organisations like NSEC to align infrastructure, standards, and investments.
- **Marine spatial planning tools** that balance energy, environmental, and shipping priorities.

9: How can we manage future oil and gas production from existing fields, in a way that accounts for the interdependencies across existing assets and supports an orderly transition across the basin? We would welcome examples of technical or commercial dependencies including timing-related considerations if relevant.

Future oil and gas production should be strategically managed to align with the transition, allowing existing infrastructure to underpin new sectors. For example:

- Platform repurposing for hydrogen production or carbon storage.
- Shared use of subsea pipelines and cable corridors across technologies.
- Phased decommissioning that considers synergies with CCUS or offshore wind siting.

Coordination will be needed across operators and with regulators such as the NSTA to enable asset-sharing agreements and aligned decommissioning timelines. Commercial models should incentivise cross-sector collaboration and infrastructure reuse.

10: How can decarbonisation projects or asset repurposing support an orderly transition of the basin, or vice versa? Please share any evidence to support your suggestions.

Repurposing existing assets reduces costs, speeds deployment, and extends the value of sunk investments. Examples include:

- Using depleted gas fields for carbon storage, such as the Endurance reservoir.
- Reusing topsides for hydrogen production or energy storage.
- Converting oil and gas vessels or ports for clean energy operations.

Decarbonisation projects like the electrification of platforms (e.g. via offshore wind) also reduce basin emissions. A coordinated asset repurposing strategy, supported by public funding where market gaps exist, is essential for an efficient transition.

11A: To what extent do you agree or disagree that this position on new licenses will support the UK to set a globally leading example in tackling climate change?

SMI cautiously agrees with the Government's position, provided new licensing aligns with robust climate tests, contributes to energy security, and supports transition financing. However, clarity is needed on how license decisions interact with net zero targets, investor confidence, and the pace of clean energy deployment. A successful UK model should demonstrate compatibility between managed hydrocarbon decline and clean energy growth.

11B: Is there anything else you think should be considered in the Government's definition of i) licensing and ii) new fields? What would be the case for doing so, including consideration of the commercial and environmental impacts?

Yes. Definitions should account for:

- Near-field developments and tie-backs, which may have lower emissions intensity and strategic value.
- Asset repurposing or dual-use applications (e.g. combined oil and CCUS use).

Definitions must be aligned with industry practice and clearly distinguish between exploration, appraisal, and redevelopment. Clarity will help investors and supply chain actors make informed decisions.

11C: Aside from oil and gas, are there any other sectors you think would be affected by these proposals? If yes, how would they be affected?

Yes. Proposals will affect:

- Maritime engineering and vessel operators supporting oil and gas operations, many of whom are seeking to diversify.
- Ports and fabrication facilities that rely on oil and gas contracts for baseline utilisation.
- Workforce and training institutions geared toward offshore industries.

Sudden or unclear policy changes could disrupt investment and jobs in these adjacent sectors.

11D: Do you anticipate any situations where additional targeted interventions might be needed or beneficial to support the government's climate and North Sea objectives? If so, what criteria or mechanism do you think should be used to determine whether such situations have arisen?

Yes. Targeted interventions may be required where:

- **Critical infrastructure** (e.g. fabrication yards, vessels, or ports) risks being lost due to transition gaps and lack of clear government support mechanisms for UK firms in the contracting process.
- **Strategic technologies** (e.g. floating wind, hydrogen systems) need support to reach scale.
- Regional impacts require mitigation (e.g. in areas heavily reliant on oil and gas).

Criteria could include economic risk to supply chain continuity, **loss of sovereign capability**, or delays to decarbonisation milestones. A North Sea Transition Fund could be a useful mechanism.

12A: What, if any, impact do you think these policy considerations could have on businesses? Please consider if small and micro and/or medium-sized businesses would be disproportionately affected.

SMEs are especially vulnerable to uncertainty, contract gaps, and shifts in investment patterns. Many small SMI members are highly specialised and dependent on oil and gas clients. Policy inconsistency could lead to cashflow issues, workforce attrition, and underinvestment. Conversely, with clear direction and support, these firms are well-placed to diversify into clean energy markets. Government should tailor support, finance access, and skills programmes to SMEs during the transition.

12B: What, if any, impact do you think these policy considerations could have for individuals with protected characteristics? If there are negative impacts, what potential mitigations could be explored?

SMI is not well placed to answer this question.

13A: Which of the following options for revising the principal objectives, if any, do you prefer?

Revised single principal objective, with clear reference to climate, energy security, and economic benefit.

13B: Please share your rationale for your answer to question 13a. If you prefer the introduction of a revised single principal objective, or the introduction of sub-objectives or multiple primary objectives, please outline what you think the objective(s) should cover.

A single, clearly defined objective provides coherence and reduces the risk of conflicting priorities. The revised principal objective should cover:

- Delivery of net zero and decarbonisation goals.
- Energy security and system resilience.
- Support for a just transition and UK industrial capabilities.
- Efficient management of resources and infrastructure across the North Sea.

Sub-objectives could supplement this, but should not dilute clarity.

14A: What are your views on the ideas for reforms to the NSTA's powers considered above?

SMI supports greater clarity and flexibility in the NSTA's powers to support transition objectives, particularly around:

- Facilitating infrastructure reuse.
- Supporting basin-wide planning.
- Encouraging cross-sector coordination.

Powers must be exercised with industry consultation and transparency.

14B: In addition to those explored above, are there any other areas of the NSTA's powers which could benefit from reforms?

Yes. The NSTA could be empowered to:

- Support innovation and export capability in offshore energy supply chains.
- Coordinate workforce and skills planning across sectors.
- Encourage supply chain resilience, for example, by setting expectations on local content or UK capability development in licensing rounds.