

Hitachi Energy's response to Energy Security and Net Zero Committee inquiry on "Industrial strategy for clean power"

Introducing Hitachi Energy

Hitachi Energy is a global leader in technologies that increase the capacity, resilience and flexibility of the electricity grid. Leveraging £5bn of investment, we are harnessing best practises in the energy, industrial, mobility, IT and smart cities sectors around the world and delivering this insight to the markets that we operate in. We are a major investor in the UK, with a turnover of over £1 billion and operations across the country, from Shetland to Somerset and North Wales to Norfolk. We are continuing our growth journey in the UK with over 650 employees and are on track to more than double our UK operations over the last 5 years.

We are advancing the world's energy system based on renewable energy, the lowest cost, most secure and most sustainable source of power. As a technology leader, we collaborate with customers and partners to enable a sustainable energy future – for today's generations and those to come. We are already helping to bring clean energy to more than ten million UK homes by connecting the world's two largest offshore windfarms at Dogger Bank and Hornsea to the grid.

Our response

Q1: How can UK plc capture its fair share of the economic potential of emerging or less developed energy technologies?

Hitachi Energy believes that the energy sector, and specifically power generation, transmission and distribution, are key enablers for greater economic resilience, innovation, and sustainable growth across the wider economy. The UK can gain a competitive edge in developing technologies for offshore meshed HVDC grids, positioning itself as a first mover in this emerging sector. We have elaborated on this rationale in our response to the previous inquiry.

Q2: What more can the Government do to encourage greater domestic supply chain investment in the energy industry by 2035, including through the Contracts for Difference scheme?

In our view, the primary barrier to growth in the UK energy sector supply chain is the lack of clarity and continuity in the future project pipeline. This uncertainty, often described as a "boom and bust" cycle, affects not only the energy sector but many other growth-driving industries. A stable, long-term pipeline is essential for all supply chain participants to plan effectively, ensuring the timely sourcing of materials and skilled labour. We focus our response to Question 2 of this inquiry on the investment environment, but also wish to highlight the importance of aligning skills development with long-term demand, which is discussed in our response to Question 3.

Global competition and investment confidence

The UK faces intense global competition in attracting supply chain investment. Currently, other regions—including many EU states, North America, and increasingly the Middle East—are outperforming the UK in providing investment certainty. Their success is driven by long-term policy frameworks, centralised procurement models, and industrial strategies that offer businesses more predictable pipelines. Building confidence in the future pipeline consists of several elements; a long-term network plan with a demonstrable delivery record; clarity on who will procure equipment and services within that plan; a procurement mechanism for long term partnerships for programmes of work (as opposed to project by project procurement). The UK must address these gaps to remain competitive.

We welcome NESO and the UK Government's work to progress long-term planning for electricity transmission in the GB electricity system, which will help boost investment confidence – provided that these are fully delivered and a strong track record for delivery is developed. Deliverability of infrastructure will depend on the implementation of actions particularly from the Strategic Spatial Energy Plan (SSEP), the Centralised Strategic Network Plan and the Clean Power 2030 Action Plan with planning reform being a key risk that must be successfully delivered. Additionally, in distribution infrastructure, the legacy system that disincentivised anticipatory investment is beginning to shift, and this should be accelerated.

Procurement reform to improve investment certainty

The UK's procurement model must evolve to provide a long-term certainty to networks' supply chains. Network companies should be empowered to make long-term commitments—beyond a decade in the case of major transmission equipment manufacturers. The current market structure and procurement approach fragment the purchases of supply chain capacity amongst different participants in the sector – such as renewable developers, Transmission Operators (TOs), Independent Transmission Operators (ITOs), Distribution Network Operators (DNOs) and Independent Distribution Network Operators (IDNOs). Other countries have tackled this issue by adopting more centralised procurement approaches, reducing risk and increasing investor confidence. Reforming procurement processes would lower barriers to growth for the wider supply chain and offer investors long-term visibility and commitment to projects.

Reforms can be achieved by the UK Government via various means, including facilitating longer-term procurement partnerships for TOs, DNOs, and the supply chain by allowing network companies to procure competitively, and standardising product solutions in the longer term across the whole system. We welcome the forthcoming introduction of the Advanced Procurement Mechanism (APM) in Ofgem but please note that we have several outstanding concerns which we have outlined in our response to Question 5.

Contracts for Difference (CfD) and supply chain investment

The UK Government should also address key shortcomings of the Contracts for Difference (CfD) scheme, which currently undermine investment confidence. Although this competition has successfully driven down technology costs in certain areas, it has also created financial vulnerabilities for developers, compromising sustainability of projects and limiting the number of projects that can move forward.

Namely, current capacity targets often fall short of what is actually needed, and in some cases, the competitive process that is applied comes too late to reduce costs. As a result, offshore wind developers are at a significant disadvantage when securing supply chain resources as they bid on individual projects at short notice following the current CfD allocation rounds.

The UK Government should review these structural weaknesses to ensure that the CfD process incentivises sustained investment in domestic supply chains rather than driving short-term cost reductions at the expense of long-term stability.

Addressing REMA uncertainty

Finally, the UK Government must urgently resolve the uncertainty surrounding the ongoing Review of Electricity Market Arrangements (REMA), as this continues to dampen investment confidence. It is important that any new policies and programmes implemented alongside the REMA programme are considered holistically in order to provide certainty and stability for investors and developers, including reassurance on how REMA will interact with other major reforms such as the SSEP, the forthcoming Industrial Strategy, and accompanying Clean Energy Sector Growth Plan. A coherent, cross-cutting approach is needed to ensure that REMA reforms support, rather than disrupt, supply chain investment.

Q3: Does the UK have the supply chain capacity to deliver the required energy infrastructure by 2035, including an expanded electricity network?

The UK is currently reliant on the import of key equipment used in the expansion and upgrading of the electricity network. This means that the UK's ability to become a clean energy superpower depends not only on the delivery of appropriate grid infrastructure, but also on our ability to take advantage of the economic opportunity.

To attract and grow supply chain investment amid intensifying global competition, a comprehensive package of incentives is required—particularly to expand manufacturing and engineering capacity. As discussed in our response to Question 2, supply chain development and support starts with providing greater certainty of the project pipelines. However, this should also include financial measures such as investment allowances and capital grants. We believe that the UK Government should provide a clear investment trigger for businesses, similar to the previously proposed Green Industries Growth Accelerator (GIGA). Mechanisms such as the National Wealth Fund (NWF) will be critical in directing private investment towards key supply chain areas.

Skills development as a critical barrier

The availability and development of appropriate skills is another major constraint on supply chain growth. The current apprenticeships system does not sufficiently support the broad skills needs of the energy sector, such as attracting talent from diverse backgrounds, supporting early career entrants, facilitating reskilling, and enabling their transition from other sectors.

The lack of a coordinated skills strategy is already a major barrier to delivering the Clean Power 2030 mission and the wider electrification of the economy. New, flexible training mechanisms are urgently needed to align with rising demands for reskilling, upskilling, and talent acquisition. The Apprenticeship Levy in its current form does not support this approach and needs reform to enable greater investment in training.

More broadly, skills development in the UK remains highly fragmented. The UK Government has a key role in unifying efforts and providing funding to create strong incentives for employers and individuals to engage in training, whether through Skills England or energy-specific bodies. While we welcome the establishment of the Office for Clean Energy Skills within DESNZ, we urge greater leadership in unifying training efforts and improving accessibility across different energy sectors.

Q4: To what extent would growing the domestic supply chain bolster UK energy security?

The UK has successfully attracted substantial international investment in the energy sector, but expanding domestic supply chains is essential for bolstering national energy security. UK-based manufacturers are more likely to prioritise UK energy and electricity network projects, reducing reliance on overseas suppliers and mitigating external risks.

Strengthening domestic supply chains is critical to ensuring long-term economic resilience, particularly as global competition for clean energy infrastructure intensifies. Despite the UK's ambitions to become a leader in the energy transition, there is currently no mechanism to incentivise the use of locally sourced materials, services, or labour in energy infrastructure projects.

The drive for clean energy generation, transmission and distribution, worldwide, has placed immense pressure on global supply chains, as countries compete for limited capacity and scarce resources. For Hitachi Energy, this is especially evident in key constrained components, such as transformers and HVDC convertors, and critical minerals like copper. Without proactive investment in domestic manufacturing capabilities, the UK risks being at a disadvantage in securing these vital materials.

Expanding the UK's supply chain is not just an economic opportunity—it is a national security priority. Strengthening domestic production capabilities would reduce exposure to geopolitical risks, supply chain disruptions, and price volatility in global markets, ultimately safeguarding the UK's clean energy transition.

Q5: What are the key concerns with respect to the availability of raw materials in the supply chain and how might those be addressed?

Geopolitical tensions and supply chain disruptions continue to pose significant risks to the availability of critical raw materials, impacting the cost, delivery, and feasibility of energy infrastructure projects.

Ensuring supply chain resilience and procurement flexibility for raw materials will be critical to delivering the UK's clean energy transition on time and at scale.

As noted in our contribution to the Committee's previous inquiry, Hitachi Energy operates in and supports a free global market for key components used in the development and upgrade of electricity networks, such as copper, electrical steel, and semiconductors components. This is why we welcome the UK Government's intention to enhance international partnerships for vital goods including critical minerals, as well as to deliver the forthcoming Critical Minerals Strategy. Ensuring secure and diversified supply chains will be crucial for maintaining UK energy security and project deliverability.

We also support Ofgem's APM. In our view, the APM has the potential to resolve some long-standing bottlenecks in the UK and global supply chains. However, as currently proposed, the mechanism does not account for cost escalations in equipment contracts caused by supply chain shocks, particularly fluctuations in raw material prices. Furthermore, the APM allowance does not align with the commercial reality of staged procurement programmes, where financial commitments for raw materials are made incrementally.