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Common Challenges, Complementary Strengths: Italy, the EU and the UK in the Clean Energy Transition

by **Margherita Bianchi and Pier Paolo Raimondi**

Italy, the EU and the UK share aligned climate ambitions, overlapping clean technology strategies and common vulnerabilities in critical raw material supply chains. Against a backdrop of growing strategic competition with China and rising economic pressure, deeper trilateral cooperation offers significant mutual benefits. Priority areas include expanding cross-border electricity interconnections, linking emissions trading schemes, developing compatible frameworks for carbon capture and storage, coordinating critical mineral diplomacy – especially in Africa – and aligning industrial policies to avoid unnecessary friction between partners whose long-term interests converge. Italy's institutional weight within the EU and its distinctive Mediterranean and African diplomatic reach make it a pivotal actor in advancing this agenda.

Executive summary

The UK, Italy and the EU share aligned climate ambitions, common industrial interests, and energy security risks. In a more contested geopolitical environment, closer cooperation on clean energy represents a potential area for deeper collaboration.

A starting point is electricity market integration. The technical groundwork for closer alignment already exists. Harmonising grid codes and network standards, and improving coordination on interconnection, would make cross-border electricity trading more efficient and system operation more reliable. The benefits are significant across the energy trilemma: greater security of supply, a reduced burden on national grids and consumers, and a much stronger foundation for integrating renewables at scale. There is also a structural logic to this that goes beyond bilateral convenience. A continental energy system that can balance the wind capacity of northern Europe with the solar and wind resources of the Mediterranean is inherently more resilient than one composed of separate national markets that cooperate only at the margins.

Linking the UK and EU emissions trading schemes is a second priority where momentum already exists and the case for acceleration is strong. A functioning link would reduce friction for businesses, improve price signals for low-carbon investment and demonstrate that the United Kingdom's departure from the EU need

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not mean permanent regulatory divergence on climate. Related work on product standards, supply chain due diligence and carbon content reporting frameworks would reinforce these gains, helping to create a more coherent and predictable regulatory environment for the clean economy – one in which companies can plan and invest across both jurisdictions without navigating two incompatible systems.

The third area, cross-border frameworks for carbon capture, usage and storage (CCUS), is less developed but potentially very significant. The economics of CCUS are difficult at small scale; many of the most promising projects depend on shared infrastructure that crosses national boundaries. Compatible rules for CO_2 transport and storage are a prerequisite for unlocking that investment, and at present they do not exist in any meaningful form. Getting this right would allow projects to scale in ways that neither the United Kingdom nor its European partners can achieve independently.

These sectoral priorities sit within a broader conversation about industrial strategy and finance. Both the United Kingdom and the EU are pursuing active industrial policies to support clean technology – through procurement, subsidies, standards and local content requirements. The risk is that these policies, designed to build domestic capacity, end up creating unnecessary friction between partners whose long-term interests are aligned. Shared principles on clean technology subsidies and investment screening would help manage that risk and would also strengthen the collective hand that the UK and EU can play when engaging with major third-country producers. On financing, the constraints are real but not insuperable: mutual eligibility for green financial instruments, joint blended finance vehicles for infrastructure like North Sea hybrid projects and a deliberate effort to embed UK access into the architecture of the next EU Multiannual Financial Framework are all practical steps that could help mobilise investment without requiring either side to take on unsustainable fiscal burdens.

Underlying all of this is the question of critical raw materials (CRMs). No clean energy transition is possible without reliable access to the minerals that flow through it, and the current pattern – of European partners competing against each other in the same markets, with limited leverage and inconsistent standards – is both inefficient and strategically vulnerable. A more coordinated approach would work on several levels simultaneously: aligning traceability and due diligence standards; aggregating demand and coordinating diplomatic engagement with key supplier countries in Africa and Latin America to build genuine leverage and avoid a race to the bottom; and drawing more systematically on Italy's existing relationships on the African continent, particularly through the Mattei Plan, to develop supply chain partnerships that are fair, sustainable and grounded in established trust.

Introduction

For Europe, the strategic case for decarbonisation has shifted decisively since Russia's invasion of Ukraine

Amid global tensions, the collaborative spirit ignited by the Paris Agreement a decade ago appears to be fading.[1] Yet climate policies have not stalled – momentum continues to build, particularly across non-OECD countries – and the underlying drivers of the energy transition have, if anything, grown stronger.

For Europe, the strategic case for decarbonisation has shifted decisively since Russia's invasion of Ukraine. What had been framed primarily as an environmental imperative is now understood as an economic and security priority. The invasion exposed with unusual clarity the depth of European vulnerability to imported fossil fuels, to price volatility and to geopolitical coercion by supplier states. That vulnerability is structural rather than incidental: declining domestic fossil fuel production, driven by both economic and geological constraints, will only deepen import dependence over time. Clean electrification has therefore emerged not merely as a climate instrument but as a means of reducing strategic exposure and long-term energy costs.

The opportunity is not only defensive. The global market for clean technologies is projected to exceed 2 trillion dollars by 2035, up from 700 billion in 2023[2] – a transformation that carries significant industrial consequences for the countries best positioned to compete in it. At the same time, Europe and its partners have grown increasingly alert to China's dominant position across clean technology supply chains, from critical minerals to finished components, a concentration that raises economic, industrial and geopolitical concerns in roughly equal measure.

It is against this backdrop that closer cooperation between Italy, the European Union and the United Kingdom presents itself as a natural and pressing opportunity. The foundations are already in place. The EU remains the UK's largest trading partner, accounting for almost 52 per cent of UK foreign trade in goods in 2024; the UK is the EU's third-largest trading partner at 10.1 per cent,[3] with the EU running a trade surplus in goods of 176 billion euros. The relationship is deep, variegated and underpinned by decades of regulatory and institutional alignment.

Since the UK left the EU's Internal Energy Market, cross-border energy trade has become less efficient, and investment in infrastructure that requires interoperability across both markets has become

[1] Buckup, Sebastian, "After Paris", in *Foreign Affairs*, 19 January 2026, https://www.foreignaffairs.com/world/after-paris.
[2] International Energy Agency (IEA), *Energy Technology Perspective 2024*, October 2024, p. 19, https://www.iea.org/reports/energy-technology-perspectives-2024.
[3] European Commission DG for Trade website: *United Kingdom*, https://policy.trade.ec.europa.eu/node/470_en.

The underlying logic of energy cooperation – shared geography, complementary renewable resources, overlapping industrial interests – remains compelling

harder to justify. Yet the underlying logic of energy cooperation – shared geography, complementary renewable resources, overlapping industrial interests – remains compelling. Both sides face the same tests: exposure to Chinese dominance in clean technology supply chains, the challenge of scaling manufacturing capacity and the need to reconcile ambitious decarbonisation targets with constrained public finances and real pressures on industrial competitiveness.

The political will to address this is present. At the EU-UK summit in May 2025, both parties outlined shared global priorities for a renewed strategic partnership, with energy cooperation explicitly identified as a priority area. The institutional architecture also exists: the Trade and Cooperation Agreement (TCA) provides a bilateral framework; the North Seas Energy Cooperation (NSEC) offers a plurilateral forum for offshore energy development; and multilateral settings including the G7, G20 and UNFCCC create further opportunities for aligned action. The challenge is less the absence of frameworks than the difficulty of operationalising them in a coherent and mutually reinforcing way, rather than allowing effort to fragment across parallel tracks.

This paper unpacks the case for deeper cooperation between Italy, the EU and the UK on clean energy – examining both its internal and external dimensions. It begins with the domestic context: the climate targets, industrial strategies and supply chain vulnerabilities that shape each party's position. It then turns to the external dimension, considering how bilateral and multilateral frameworks can be mobilised to advance shared interests in electricity market integration, carbon pricing alignment, critical minerals and clean technology development. Throughout, it pays particular attention to Italy's role – as a large EU member state, a Mediterranean energy hub and a country with distinctive diplomatic reach in Africa – in shaping the broader EU-UK relationship (see box 1 on this latter aspect).

BOX 1. STRENGTHENING ITALY-UK DIALOGUE

Italy and the UK could explore different initiatives to deepen their energy collaboration. Italy occupies a distinctive position in this relationship: as the EU's third-largest economy and a country with significant industrial exposure to the energy transition, it has both the incentive and the leverage to act as a key bilateral interlocutor for the UK within the EU framework.

- *Market opportunities*: the two countries can facilitate business opportunities for their respective key technologies, exploiting comparative advantages, also through dedicated meetings and fora. For example, the British expertise in wind energy could be of particular value for Italy's decarbonisation strategy. At the same time, Italy's industrial capabilities on grids and heat pumps can contribute to the British electrification efforts.

- *North Sea and offshore energy projects*: A concrete foundation for deeper bilateral cooperation already exists. Italy's Eni is a key partner in the Liverpool Bay carbon capture and storage (CCS) project with the UK government, which aims to store up to 4.5 $MtCO_2$ per year, with potential expansion to 10 $MtCO_2$/year by the 2030s, contributing to the decarbonisation of several British industrial clusters. This partnership could serve as a model and a platform for scaling up joint CCS and hydrogen development, leveraging Eni's offshore infrastructure expertise alongside British capabilities in CCUS and offshore wind.

- *Critical raw materials*: Italy and the UK share a strategic interest in diversifying CRM supply chains, particularly in Africa and Latin America, where both have active, complementary diplomatic and development finance footprints. The Italian Mattei Plan and UK development finance instruments could be jointly mobilised to co-fund CRM extraction and processing projects in third countries, aggregating demand, raising standards and avoiding competitive undercutting. Both countries also have an interest in aligning on traceability and due diligence frameworks, building on the convergent approaches outlined in their respective mineral security strategies and in the G7 Critical Minerals Action Plan launched in 2025. Furthermore, they could further align their mineral strategies relating to key infrastructure projects, such as the Lobito Corridor.

- *Automotive and EV supply chains*: Italy's automotive sector faces similar structural pressures from Chinese EV competition as British manufacturers. The two countries share an interest in coordinating on tariff policy, rules of origin for EVs under the TCA and investment screening for Chinese FDI in automotive manufacturing. Uncoordinated responses risk diverting Chinese exports from one market to the other rather than addressing the underlying competitive challenge. Closer bilateral coordination, including through the G7, would strengthen both countries' positions and reduce the risk of retaliatory trade friction.

Regulatory alignment on offshore wind component standards, cross-border CO_2 transport rules relevant to projects such as Liverpool Bay and CBAM design. Aligning on these issues would reduce compliance costs for businesses operating across both markets and strengthen the foundations for deeper bilateral industrial cooperation.

Both the EU and UK have set ambitious climate targets

1. THE INTERNAL DIMENSION: FROM EMISSIONS MITIGATION TO ECONOMICS

Both the EU and UK have set ambitious climate targets since 2019. That year, the UK was the first of major economies to legally establish a net zero target by 2050, while the EU joined the net-zero race by launching its European Green Deal. In the years that followed, both sides developed strategies, policies and targets spanning the full range of technologies required for deep decarbonisation, with clean electrification at the heart of their efforts. The UK issued its Clean Power by 2030, while in the EU several pieces of legislation, such as the Fit-for-55 package, REPowerEU Plan and the 2040 climate target, have set ever-growing renewables targets. In line with EU regulation, Italy issued its National Energy and Climate Plan (NECP) in 2024 outlining its energy transformation up to 2030 (see table 1).

TABLE 1 EU, UK and Italian clean tech targets by 2030

Clean tech	EU	UK	Italy
Solar	383 GW (Fit for 55) 600 GW (REPowerEU)	45-47 GW	79.2 GW
Wind offshore	510 GW (total)	43-50 GW	2.1 GW
Wind onshore		27-29 GW	26 GW
CCS	50 $MtCO_2$/year (NZIA)	20-30 $MtCO_2$/year	4 $MtCO_2$ in Ravenna
Battery	No biding target found	23-27 GW	15 GW BESS
Long-duration energy storage	No biding target found	4-6 GW	8 GW
Hydrogen	40 GW	10 GW	3 GW
Nuclear	No EU-target	No specific target for 2030, but 24 GW by 2050 (now is 6,5 GW in terms of production)	8 GW (by 2050)

Source: Authors' elaboration on official documents.

These policy commitments have been matched by meaningful progress on the ground. Low-carbon sources generated 66 per cent of UK electricity in 2024. The rise of wind and solar power (36 per cent of UK's electricity generation, exceeding fossil fuel for the first time) has been coupled by the phase-out of coal power (the last coal plant closed in October 2024). A similar trend has been experienced by the EU, with wind and solar generation accounting for 29 per cent of EU electricity in 2024 while fossil fuel generation fell to its lowest level ever at 29 per cent. Italy, too, has accelerated its renewable deployment in the wake of the energy crisis, benefiting from the removal of longstanding bureaucratic barriers to new capacity – though it remains heavily dependent on gas imports, a vulnerability that continues to weigh on its energy security.

Despite these encouraging trends, both the EU and the UK will need to significantly accelerate deployment to stay on track with their decarbonisation targets. Policymakers face political pressure to deliver the targets at a time of growing socioeconomic concerns. In response, both have increasingly anchored their climate ambitions within a broader industrial policy framework, seeking to demonstrate that the energy transition can generate tangible economic benefits while reducing – or at least managing – strategic dependencies. Both are committed to building competitiveness in clean technologies, while simultaneously protecting and adapting incumbent industries facing structural disruption, from the automotive sector to energy-intensive industries such as steel, cement and aluminium.

1.1 Clean industrial policies

In June 2025, the UK government issued its Modern Industrial Strategy, aimed at revitalising the British economy through a range of measures.[4] Central to the strategy is the identification of eight high-priority sectors – including clean energy industries – deemed to hold the greatest growth potential over the coming decade, each supported by a dedicated Sector Plan.[5] These sectors are instrumental to support economic security and resilience, net zero and regional growth. Across the Channel, the EU has pursued a parallel ambition: the Net-Zero Industry Act, presented in 2024, and the Clean Industrial Deal, launched in February 2025, both reflect a determined effort to reconcile decarbonisation with industrial competitiveness – framing the energy transition not as a cost to be managed but as a driver of lower energy prices, innovation and long-term economic strength. The EU and UK are key producers of knowledge on clean tech. While the EU has a strong specialisation in high-technology readiness level (TRL) market-ready technologies, such as advanced fuels, geothermal hydropower and smart electricity, the UK shows specialisation in low-TRL emerging technologies related to CCUS technologies and wind energy.[6]

The EU and UK are key producers of knowledge on clean tech. Yet translating this knowledge, expertise and ambition into concrete action has proved contentious

Yet translating this knowledge, expertise and ambition into concrete action has proved contentious. Considering global competition, policymakers are contemplating measures to shield and support homegrown technologies and industries. In this sense, discussions among EU member states and institutions have delayed the presentation of the EU Industrial Accelerator Act (IAA), ultimately

[4] UK Government, *The UK's Modern Industrial Strategy*, November 2025, https://www.gov.uk/government/publications/industrial-strategy.
[5] UK Government, *Industrial Strategy Sector Plans*, 8 September 2025, https://www.gov.uk/government/publications/industrial-strategy-sector-plans/sector-plans.
[6] Eulaerts, Olivier et al., *Early-Stage Technologies in the Field of Clean Energy*, Luxembourg, Publications Office of the EU, 2026, https://doi.org/10.2760/8002916.

The EU and the UK remain significantly exposed to import dependence across critical segments of clean-tech value chains

made on 4 March 2026.[7] A growing number of countries have advocated for local content requirements – so-called "Made in Europe" criteria – as a means of nurturing European industrial capacity. While politically appealing, such an approach risk provoking diplomatic friction with trading partners and imposing significant economic costs that could ultimately undermine the competitiveness it seeks to protect. A more inclusive approach (the so-called 'Made with Europe') may be more beneficial and efficient for Europe's multiple objectives: competitiveness, resilience and decarbonisation.[8]

Moreover, despite their shared ambitions to become global clean technology leaders, both the EU and the UK remain significantly exposed to import dependence across critical segments of clean-tech value chains – from raw materials and components to fully assembled goods – and concentrated in a small number of supplier countries.[9] China has gained a strategic role in both upstream and downstream segments of many cleantech value chains. Indeed, Beijing alone accounts for 40-80 per cent of the world's manufacturing capacity across value chain of various clean tech components.[10] An illustrative case is solar PV, where China accounts for around 80 per cent.

In navigating this dependency, the two sides have adopted notably different approaches. The UK has largely focused its industrial ambitions on technologies where it holds genuine comparative advantages, most notably offshore wind and CCUS. This targeted strategy has yielded results: the UK attracts 15 per cent of global investment in wind technology, making it the world's leading destination for wind FDI, underpinned by strong capabilities in offshore wind development and related manufacturing.[11]

[7] European Commission, *Proposal for a Regulation Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors* ... (COM/2026/100), 4 March 2026, https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52026PC0100.

[8] Cornillie, Jan et al., "Clean Trade and Investment Partnerships (CTIPs) for Enhancing EU Competitiveness, Resilience, and Decarbonisation", in *EUI STG Policy Briefs*, No. 2025/20 (December 2025), https://doi.org/10.2870/7131545.

[9] Bianchini, Marco et al., "The Evolution of Cleantech Manufacturing. Implications for FDI and SME Linkages across Europe", in *OECD SME and Entrepreneurship Papers*, No. 74 (2025), https://doi.org/10.1787/be87b21b-en; Resende Carvalho, Lucas et al., *Between a Rock and a Hard Place: Europe's Clean Tech Industry between Trump's Policies and Chinese Pressure*, Centre for European Reform / Bertelsmann Stiftung / Jacques Delors Centre, December 2025, https://www.cer.eu/node/11806.

[10] IEA, *The State of Clean Technology Manufacturing. An Energy Technology Perspectives. Special Briefing*, May 2023, https://doi.org/10.1787/b0d95dec-en.

[11] Ibid.

TABLE 2 Strategic clean technologies according to EU and UK strategies

UK	EU
Wind (onshore, offshore and floating offshore)	Wind (onshore and offshore)
Heat pumps	Heat pumps and geothermal energy
CCUS, including greenhouse gas removal (GGR)	CCS
Hydrogen	Electrolysers and fuel cells
Fusion energy	Sustainable biogas/biomethane
Nuclear fission	Grid technologies
	Solar PV and solar thermal

Note: EU Net Zero Industry Act (NZIA) supports also other clean tech, such as sustainable alternative fuels technologies, advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle, small modular reactors and related best-in-class fuels.
Source: Authors' elaboration on official documents.

1.2 Economic security and critical minerals

Closely related to these supply chain vulnerabilities is the question of CRMs, which serve as essential inputs for a wide range of clean technologies. Here too, both need to address geopolitical exposure.[12] Concentration risk is acute at the upstream level – the top three producers of lithium, cobalt and rare earth elements (REEs) collectively account for well over three-quarters of global output – but extends equally to the processing and refining stages. China stands out as dominant country in the refining of nickel (35 per cent), lithium and cobalt (50-70 per cent) and REEs (90 per cent). Price volatility and geopolitical tensions are additional drivers for security concerns.

The EU and the UK have complemented their industrial strategies with dedicated mineral security strategies

It is therefore unsurprising that both the EU and the UK have complemented their industrial strategies with dedicated mineral security strategies, built around three common pillars: expanding domestic production, scaling up recycling and diversifying import sources (see table 3).[13] The EU took a further step in December 2025 with the adoption of the ResourcEU Action Plan, designed to operationalise its broader mineral security agenda. Italy, for its part, has updated its domestic mining legislative framework to align with the relevant EU legislation.

[12] Raimondi, Pier Paolo, "EU and Italian De-risking Strategies for Energy Transition: Critical Raw Materials", in *IAI Papers*, No. 25|09 (June 2025), https://www.iai.it/en/node/20282.
[13] UK Government, *Vision 2035: Critical Minerals Strategy*, 23 January 2026, https://www.gov.uk/government/publications/uk-critical-minerals-strategy/vision-2035-critical-minerals-strategy; European Parliament and Council of the EU, *Regulation (EU) 2024/1252 of 11 April 2024 Establishing a Framework for Ensuring a Secure and Sustainable Supply of Critical Raw Materials*, https://eur-lex.europa.eu/eli/reg/2024/1252/oj/eng.

TABLE 3 UK and EU CRMs targets under official strategies

	UK	EU
Domestic production	10%	10%
Processing	Included in the domestic production	40%
Recycling	20%	25%
Import diversification	No more than 60% of annual consumption from a single country by 2035	No more than 65% of annual consumption from a single country

Source: Authors' elaboration on official documents.

1.3 Economic and fiscal constraints

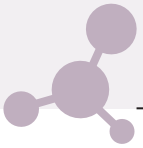
Industrial ambitions both in the EU and the UK face a set of shared domestic constraints, such as cost of energy

Ambition is high, yet challenges remain. Both the EU and the UK face a set of shared domestic constraints. A persistent and structural challenge is the cost of energy: both have consistently faced higher energy prices than other major economies, placing existing industries under strain and acting as a deterrent to new manufacturing investment. Addressing this problem will require not only progress on decarbonisation – which over time should reduce exposure to volatile fossil fuel markets – but also a significant expansion of fiscal and financial support to sustain incumbent industries through the transition and to stimulate the emergence of competitive clean technology manufacturing.

The UK has taken initial steps in this direction. The Industrial Strategy sets out a range of financing institutions and policy instruments, including a 1 billion-pound clean energy supply chain initiative, the 27.8 billion-pound National Wealth Fund, and the British Business Bank, whose financial capacity has been expanded to 25.6 billion. The adequacy of these resources will depend on the scale and evolution of future investment needs. The scale of the challenge, however, is likely to demand considerably more.[14] On the EU side, a range of financial instruments has been deployed to support clean technology manufacturing, but the system remains heavily reliant on national state aid – including under the Clean Industrial Deal – a dependence that risks creating growing disparities between member states based on their differing fiscal spaces. The upcoming Multiannual Financial Framework for 2028-2034 is widely expected to play a pivotal role in narrowing the investment gap, though the shape and ambition of that budget remain to be determined.

Lastly, the growing clean tech market entails also major trade consequences. A clear example concerns another technology where China shows remarkable success: batteries and electric vehicles – a key technology for countries' mitigation efforts. As China accounts

[14] UK Government, *Clean Energy Industries Sector Plan*, 5 August 2025, https://www.gov.uk/government/publications/clean-energy-industries-sector-plan.



An excessive prioritisation of security can come at a significant cost to affordability, creating difficult socioeconomic and political trade-offs

for 40 per cent of global car manufacturing capacity today with a strong position in the electric cars, Beijing has shocked the global auto industry by becoming the world's largest car exporter overtaking the EU.[15] Constrained domestic consumption, resulting in growing export volumes, has accelerated the process and put Western carmakers under pressure.[16] EU governments have tried to protect their domestic producers through tariffs.[17] As car trade is particularly relevant for the EU-UK relationship, coordination on tariffs and foreign investments would be critical. The TCA in this sense includes provisions on 'rules of origin' for EVs seeking to promote greater domestic production.[18]

Underlying all of this is a deeper tension that policymakers on both sides will need to confront: an excessive prioritisation of security can come at a significant cost to affordability, creating difficult socioeconomic and political trade-offs. Nowhere is this dilemma more acute than in the question of how Europe should manage its relationship with China at a time of trade fragmentation and heightened geopolitical competition. This tension is pushing policymakers toward a revision of trade policy and a greater reliance on defensive instruments, including tariffs. An illustrative example is the imposition of countervailing duties to EVs imports from China in October 2024 following an anti-subsidy probe conducted by the Commission. In January 2026, the Commission presented a guidance document for Chinese exporters of EVs to the EU outlining a new minimum pricing system or price undertaking.[19]

2. External dimension

Policymakers must weigh this instinct carefully against both the economic consequences – particularly in terms of affordability – and the practical and temporal limits of what domestic production can realistically achieve in the near term. To address these issues, each government must reconcile its climate policy with its foreign and trade policies as highlighted by the multiple crises over the recent

[15] IEA, *What Next for the Global Car Industry? An Energy Technology Perspectives*, November 2025, https://www.iea.org/reports/what-next-for-the-global-car-industry.
[16] Tordoir, Sander and Brad Setser, "How German Industry Can Survive the Second China Shock", in *CER Policy Briefs*, January 2025, https://www.cer.eu/node/11268.
[17] Poliscanova, Julia, "To Raise or Not to Raise. How Europe Can Use Tariffs as Part of an Industrial Strategy", in *Transport & Environment Briefings*, https://www.transportenvironment.org/articles/how-europe-can-use-tariffs-as-part-of-an-industrial-strategy.
[18] Szczepański, Marcin, "EU–UK Rules of Origin for Electric Vehicles and Batteries", in *EPRS At a Glance*, February 2024, https://www.europarl.europa.eu/thinktank/en/document/EPRS_ATA(2024)757643.
[19] European Commission DG for Trade, *Commission Issues Guidance Document on Submission of Price Undertaking Offers for Battery Electric Vehicles from China*, 12 January 2026, https://policy.trade.ec.europa.eu/node/1952_en.

years. In this effort, cooperation and partnerships remain essential. The fact that the EU and UK share existing cooperative frameworks (i.e., TCA) and both are members of multiple international fora (e.g., G7 and G20) provides a solid and practical foundation from which to deepen collaboration at the bilateral, regional and global levels.

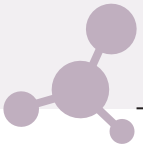
2.1 Bilateral and regional

One of the most promising areas for deeper cooperation lies in electricity trade and renewable energy development

One of the most promising areas for deeper cooperation lies in electricity trade and renewable energy development – both of which are already embedded in existing frameworks. The TCA's Title VIII specifically addresses the energy dimension of the bilateral relationship, aiming to facilitate trade and investment while safeguarding security of supply. At present, the two sides of the Channel are linked by 9.8 GW of electricity interconnection capacity. Looking ahead, the UK government has set a target of 18 GW of total interconnection capacity by 2030, almost all of which would connect to countries within the EU's internal energy market.[20] Expanding this infrastructure would deliver tangible benefits for both EU and British consumers across all three dimensions of the energy trilemma – affordability, security and sustainability – making it one of the clearest and most mutually advantageous areas for accelerated cooperation. Energy UK estimated that inefficient trade increased wholesale electricity costs by 0.25-0.70 per cent per year (130-370 million pounds in 2022) across generators and consumers in both the EU and UK.[21] The numerous economic, security and market benefits of electricity interconnections are well document. A concrete example is when the UK in 2022 became a net exporter of electricity to Europe for the first time in over forty years, largely due to increased demand from France following a plunge in its nuclear generation.

The North Sea represents perhaps the most promising geographical arena for translating EU-UK cooperation into concrete projects and tangible results. In recent years, the countries bordering the North Sea have steadily deepened their political commitment to jointly harnessing its vast renewable potential, primarily through the NSEC framework. At the Ostend North Sea Summit in April 2023, nine NSEC member countries issued a Joint Declaration committing to reach at least 300 GW of offshore wind capacity by 2050, subsequently complemented by an intermediate target of 120 GW by 2030. The UK joined the Ostend Declaration and continued to work with the NSEC group to develop offshore wind capacity with other European

[20] UK Parliament, *Electricity Interconnectors. Question for Department for Energy Security and Net Zero*, UIN 20212, 25 March 2024, https://questions-statements.parliament.uk/written-questions/detail/2024-03-25/20212.
[21] Energy UK, *The Power of Partnership: UK-EU Energy Cooperation for a Clean and Secure Future*, July 2024, https://www.energy-uk.org.uk/?p=20040.



British industrial expertise in developing offshore renewable and low-carbon projects could find valuable application in the Mediterranean

partners.[22] However, countries need to ramp up their deployment rate to achieve the 2030 target. Over the last five years, the current speed of expansion has been stagnant at 2.4 GW/year. This rate would need to increase by a factor of seven to an average addition of offshore wind of 17.2 GW/year over the 2026-2030 period, based on Boston Consulting Group estimates.[23]

At the same time, British industrial expertise in developing offshore renewable and low-carbon projects could find valuable application in the Mediterranean, where the untapped solar energy potential is considerable. Harnessing that potential – through robust and expanded cross-border interconnections – would strengthen Europe's overall energy security while enabling better integration between the wind in the North with the Mediterranean's solar potential, creating a more balanced and resilient continental energy system.[24] Currently, Europe's southern flank is lagging on offshore renewables deployment and CCS developments. For example, Italy set offshore wind targets and is committed to develop CCS to achieve decarbonisation strategies. Yet, the offshore wind industry is still facing major challenges due to macroeconomic headwinds and supply chains bottlenecks.[25]

2.2 At the global level

At the global level, the UK and EU have ample opportunity to deepen their cooperation across a range of energy and climate issues, including climate ambition, investment, energy security and critical minerals. On the broader question of global climate action, close collaboration will be key to amplifying diplomatic efforts and delivering on climate targets. Both parties signalled their continued commitment to climate action by submitting updated nationally determined contributions ahead of COP30 in 2025.[26] The UNFCCC provides the international perimeter for deeper coordinated climate diplomacy as it occurred at the COP26.

[22] Belgium, Denmark, France, Germany, Ireland, Luxembourg, the Netherlands, Norway and the European Commission.

[23] Klose, Frank et al., *Measuring Wind of Change: A Call to Action. Introducing a KPI-Based Monitoring Framework for Offshore Wind Expansion in the North Seas*, Boston, Boston Consulting Group, January 2026, https://www.bcg.com/publications/2026/germany-measuring-wind-of-change-a-call-to-action.

[24] Tocci, Nathalie et al., "For a New Euro-Med Green Deal", in *IAI Commentaries*, No. 23|48 (October 2023), https://www.iai.it/en/node/17608.

[25] McKinsey, "Offshore Wind: Strategies for Uncertain Times", in *McKinsey Articles*, 12 July 2024, https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/offshore-wind-strategies-for-uncertain-times.

[26] UK Government, *United Kingdom of Great Britain and Northern Ireland's 2035 Nationally Determined Contribution*, 30 January 2025, https://unfccc.int/sites/default/files/2025-01/UK%27s%202035%20NDC%20ICTU.pdf; European Union, *The Nationally Determined Contribution of the European Union and its Member States*, 5 November 2025, https://unfccc.int/sites/default/files/2025-11/DK-2025-11-05%20EU%20NDC.pdf.

The UK and EU can re-energise existing climate diplomacy tools and operationalise new ones

The UK and EU can re-energise existing climate diplomacy tools and operationalising new ones, such as the Global Clean Power Alliance and Clean Trade and Investment Partnerships (CTIPs). The EU's CTIPs represent for example a promising new green industrial diplomacy initiative designed to foster green industrialisation worldwide. Ideally, both sides would work toward mutual recognition of – and closer cooperation between – their respective international instruments. Furthermore, they would benefit from the inclusion of their counterpart in the eligibility of local content requirements expected in the IAA.

The G7 represents another forum with potential relevance, particularly on select issues. While it lacks dedicated institutional tools, it can help address certain security concerns and provide collective frameworks and initiatives in key areas, such as CRMs. These have attracted growing interest among G7 members, which all face a common challenge: overdependence on a single supplier. In 2025, Canada's G7 Presidency succeeded in launching the G7 Critical Minerals Action Plan, building on foundations laid by Japan's Presidency in 2023 and advanced by Italy in 2024. While the Action Plan offers a solid blueprint, the EU and UK could go further by collaborating on the development of shared standards and criteria to promote circularity, security and traceability of minerals – with a view to aggregating demand and attracting investment.

Against these opportunities, Italy's role is key to strengthening market integration between the UK and the EU for several interconnected reasons. As one of the EU's largest economies, Italy carries significant institutional weight within Brussels and can actively advocate for structured UK access to relevant EU frameworks. Its position as a Mediterranean hub, places it at the intersection of European energy infrastructure, linking northern grids to southern solar potential and giving it a direct stake in the kind of cross-border interconnection that would benefit both the EU and the UK. Bilaterally, Italy and the UK already share concrete industrial ties providing a working foundation for deeper cooperation on hydrogen, offshore wind and CRMs. Through the Mattei Plan, Italy also brings a distinctive diplomatic and development finance footprint in Africa and the Mediterranean, which aligns closely with shared EU-UK priorities on supply chain resilience and clean energy sourcing.

3. Practical avenues for deeper cooperation on clean tech at the EU-UK level

The EU and UK share aligned climate ambitions, common industrial objectives and overlapping security concerns. Energy and climate represent a natural area for deeper collaboration. By aligning on political commitment to clean energy deployment, the two sides can

unlock demand and provide a clear signal to their domestic industries to turn knowledge into concrete production. A dialogue could begin by addressing the following areas:

Interconnections and ETS linking: Collaborating in expanding cross-border interconnections also with the Mediterranean would allow the integration between the wind-rich North and the sun-rich South to create a more balanced and resilient continental energy system leveraging the seasonal complementarity of the two regions. At the regulatory level, a priority should be the continuation and conclusion of negotiations related to the linkage of the UK and EU's emission trading schemes (ETSs), which at the time of writing are underway, following commitments made at the May 2025 UK-EU Summit. Linking the two systems – as the EU and Switzerland have done – would harmonise incentives, strengthen the carbon price signal and provide a shared foundation for the introduction of Carbon Border Adjustment Mechanisms (CBAMs), which both sides are now implementing. Without alignment, there is a risk that divergent carbon pricing will erode competitiveness for incumbent carbon-intensive industries and generate regulatory friction along shared supply chains.[27]

Securing CRMs: Cooperation in CRMs within the G7 and bilaterally can accelerate the development of projects. Both the EU and UK have adopted similar mineral security strategies. In practice, deeper cooperation should involve: coordinating demand aggregation and strategic stockpiling to reduce exposure to price shocks and supply disruptions; developing shared traceability and due diligence standards to ensure responsible sourcing across the full value chain; collaborating on secondary markets and the circular economy for batteries and other clean technology components, where the UK and EU are both in an early stage of regulatory development; and aligning their respective CRM diplomacy in third countries, to avoid competitive undercutting and maximise the impact of EU and UK development finance. By building on initiatives at the G7 level, the EU and the UK could enhance their cooperation on mineral diplomacy. Practically, they could work on fostering joint projects abroad, coordinating on standards and price mechanisms. The Italian Mattei Plan provides another potential platform for join actions in Africa.

Finance: The EU and UK could explore: mutual eligibility in each other's green finance instruments and guarantees; joint blended

[27] Stefanini, Sara, "The UK's CBAM Looks Significantly Different from the EU's – And It's Worrying Industries", in *Carbon Pulse*, 24 February 2026, https://carbon-pulse.com/486279.

finance vehicles for North Sea hybrid projects that inherently require interoperability between British and European energy markets.

Clean tech: Deeper cooperation should be grounded in respective comparative advantages. In offshore wind, the UK's position as the world's leading destination for wind FDI and its deep expertise in floating offshore technology should be leveraged to accelerate deployment across the North Sea and, in due course, the Mediterranean and Atlantic. In CCUS and hydrogen, joint development through projects like the Liverpool Bay CCS venture – and its potential extension to European industrial clusters – illustrates how bilateral cooperation can generate results that neither side could achieve alone. Cooperation should also extend to emerging technologies with joint R&D investment. From a market access perspective, both sides should work to ensure that their respective industrial strategies – including procurement criteria, standards and local content requirements – do not inadvertently create barriers to the other side's companies.

Trade coordination: Adopting shared principles for the design of clean technology subsidies would provide a more stable framework for private investment. Aligning CBAMs – currently being implemented in parallel but independently – is essential to prevent carbon leakage. ETS linkage, as discussed above, would resolve this issue at its root, but in the interim, coordinated CBAM design and mutual recognition of equivalent carbon pricing should be pursued through the TCA framework.

Regulatory dialogue: Closer regulatory dialogue would help prevent further divergence and provide a structured mechanism for identifying and addressing regulatory barriers as they emerge. Priority areas include:

- Product standards and certification for clean technologies, where mutual recognition would reduce compliance costs and facilitate cross-border supply chains, particularly for offshore wind components, heat pumps, batteries and electrolysers.
- Grid codes and network standards, where divergence complicates the operation of electricity interconnectors and hybrid offshore assets that span both jurisdictions.
- Sustainability and due diligence criteria for clean technology supply chains would prevent regulatory arbitrage and strengthen collective leverage over supplier countries.
- Regulatory framework aimed at facilitating cross-border CO_2 transport and measurement.
- Reporting and disclosure frameworks for the carbon content of

goods, which are foundational to the effective operation of both sides' CBAMs.

Abbreviations

CBAM	Carbon Border Adjustment Mechanism
CCS	Carbon capture and storage
CCUS	Carbon capture, usage and storage
CO_2	Carbon dioxide
COP26	2021 United Nations Climate Change Conference
CRM	Critical raw material
CTIP	Clean Trade and Investment Partnership
ETS	Emission trading scheme
EU	European Union
EV	Electric vehicle
FDI	Foreign direct investment
GGR	Greenhouse gas removal
GW	Gigawatt
IAA	Industrial Accelerator Act
$MtCO_2$	Million tonnes of CO_2
NECP	National Energy and Climate Plan
NSEC	North Seas Energy Cooperation
NZIA	Net Zero Industry Act
OECD	Organisation for Economic Co-operation and Development
PV	Photovoltaic
R&D	Research and development
REE	Rare earth element
TCA	Trade and Cooperation Agreement
TRL	Technology readiness level
UK	United Kingdom
UNFCCC	UN Framework Convention on Climate Change

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