

Unlocking coordination
between UK offshore wind
and interconnectors

Joining the dots

“The UK is a world leader in offshore wind and electricity interconnectors. We have an opportunity now to maintain that leadership through a new generation of combined assets. MPIs will benefit consumers, reduce costs, and minimise the impact on marine ecosystems and coastal communities. In collaboration with wind developers and UK Government, this report points the way towards the UK’s first such project.”

Clara Semal

Director of European Offshore Development — National Grid

“Multi-purpose interconnectors are a critical enabler of the next phase of offshore wind deployment in the UK and across the North Seas. By bringing together offshore wind, interconnectors and transmission planning, MPIs can introduce significantly greater flexibility into the energy system, strengthen our energy security, reduce costs to billpayers, and limit the impact of new infrastructure on local communities. We have been pleased to bring the wind industry and interconnector developers together to set out a clear roadmap for aligning policy, regulation and potential projects. Turning this into reality will require coordinated action across Government, regulators and industry to unlock investment and accelerate delivery at scale, and our sector stands ready to support the delivery of the first MPI pilot regime.”

Barnaby Wharton

Head of Flexibility and Grid — RenewableUK

Foreword

What are multi-purpose interconnectors and why do they matter?

Multi-purpose interconnectors combine offshore wind farms with subsea electricity interconnectors. Enabling these two technologies to work in harmony for the first time in GB waters could reduce offshore infrastructure costs, minimise environmental impact, and strengthen energy security.

About the Task Force

The Wind & Multi-Purpose Interconnectors Industry Task Force aims to spell out the benefits of multi-purpose interconnectors, identify barriers to their successful development and recommend solutions that will drive benefits to consumers by maintaining the UK's leading role in interconnector technology. Launched in May 2025, the Task Force brings together industry stakeholders to shape the future of offshore wind energy integration, working closely with both UK Government and regulatory bodies. It is co-chaired by RenewableUK and National Grid.

Acknowledgements

We would like to express our gratitude to all the Task Force members for their time and expertise in this joint endeavour:

Arup (Mark Neller, Ben Volker), **Baringa** (Matthew Grant, Vladimir Parail), **Cenos Offshore Wind** (Callum Watt), **Cerulean Winds** (Mark Dixon, Steve Jennings), **Copenhagen Infrastructure Partners** (Alex Murley), **Equinor** (Christopher Fox, Grete Håkonsen Coldevin), **Ernst & Young** (Andrew Perkins, Thomas Fletcher), **Flint Global** (Rebecca Barnett, Eilidh Alexander), **Grant Thornton** (Alasdair Grainger, Saloni Kapoor), **Herbert Smith Freehills Kramer** (Silke Goldberg, Zoe Asher), **National Grid** (Ruben Pastor-Vicedo, Martin Moran) **Ørsted** (Richard Bodal-Hansen, Natasha Nanuck, David Wellard), **RenewableUK** (Elena Beianu), **RWE** (Lois Leslie, Devid Krull), **ScottishPower Renewables** (Ross Ovens, Joe Dunn), **Scottish Renewables** (Colin Palmer, Stephen McKellar, Andrew MacNish Porter), **SSE** (Angus MacRae, John Tindal), **Thistle Wind Partners** (Ian Taylor, E Lian Diong, Callum Duff) and **WindGrid** (Kevin Rendell, Jack Counihan). Special thanks are due to Ruben Pastor-Vicedo and Elena Beianu for co-chairing the Task Force, and to Saloni Kapoor for coordinating it.

The Task Force is also thankful to numerous colleagues at DESNZ, Ofgem, NESO, The Crown Estate and Crown Estate Scotland for insightful discussions and feedback.

RenewableUK is the voice of the UK's renewable energy industry. Representing close to 500 companies spanning the full supply chain, our members develop, operate and maintain the UK's wind, tidal, storage and flexibility infrastructure. By connecting industry and policy makers, we strengthen the UK's global leadership in renewables, building a secure, affordable and sustainable energy future.

National Grid plays a vital role in connecting millions of people to the energy they use, safely, reliably and efficiently. Our goal is to deliver cleaner, safer, and more affordable energy today, and to promote the innovations that will help achieve a net zero future for this generation and the next.

Executive summary

The UK is a world leader in both offshore wind and subsea electricity interconnectors. Over the coming decade there is an opportunity to strengthen this leadership position further by enabling the development of a new generation of multi-purpose interconnectors (MPIs) with wind in GB waters for the first time.

MPIs combine offshore wind located in GB waters with interconnection. Allowing these two complementary technologies to work in harmony will deliver a range of benefits to the UK: faster and cheaper integration of offshore wind, the strengthening of our energy security, minimised environmental impact and a reduction of offshore infrastructure costs.

Currently, there are no MPIs operational or under development with wind in GB waters and the Task Force believes there are barriers in place to the development of MPIs.

To enable delivery of MPIs in the 2030s, when they will be most required, and which requires coordination with European partners, urgent policy action is needed here and now.

In this report, the Wind & Multi-Purpose Interconnectors Industry Task Force examines the blockers that exist and sets out recommended actions that will help to unlock the potential of MPIs and strengthen the UK's leadership in clean energy.

We outline three specific areas that must be addressed by policymakers

- **Delivery:** Improving coordination of offshore wind and interconnection to develop MPIs successfully
- **Cost:** Coordination of investments and clarity on network charges to give greater certainty to developers

- **Revenue:** Providing the same revenue certainty for wind farm developers when they connect via an MPI as when they connect radially, and developing an investable regime for MPI pilot projects

The report makes seven key recommendations spread across these three broad themes:

Delivery

1. **Delivery model:** Design a new process to drive MPI coordination and test it via a regulatory pilot
2. **Grid connection:** Maintain connection dates for projects that have chosen coordinated options
3. **Availability incentives:** Clarify availability incentives, building on current approaches

Cost

4. **Coordination of investments:** Provide certainty on the recovery of efficiently incurred investments for coordination
5. **Network charges:** Clarify offshore network charges for wind farms in MPIs

Revenue

6. **Offshore wind regime:** Adapt the Contracts for Difference scheme for wind farms connected via an MPI
7. **Transmission regime:** Develop an investable regime, specifically for MPI pilot projects, as successfully achieved for other asset classes

Together, these practical measures represent the first steps in creating a roadmap for the UK to realise the full potential of MPIs. These measures do not require any primary legislative changes, can be executed through existing frameworks and can deliver up to £13 billion in socioeconomic benefits for consumers.

Crucially, they establish a credible way forward that will keep the UK and its vital offshore wind and interconnector capabilities at the forefront of the clean energy transition into the 2030s and beyond.

The time to act is now.

Contents

Foreword	1
Executive summary	2
1. Introduction and context	4
1.1. What are multi-purpose interconnectors?	4
1.2. Status of multi-purpose interconnectors	6
2. MPI blockers and proposed solutions	8
2.1 Delivery	8
2.2 Cost	11
2.3 Revenue	13
3. Way forward and conclusions	16
Appendix —Delivery model details	18
Endnotes	20

Introduction and context

1.

In this chapter, we set out the opportunity ahead for the UK to combine offshore wind technology with a new generation of multi-purpose interconnectors (MPIs). We explain what MPIs are, summarise the benefits they can deliver, and describe their current status.

The UK is a pioneer and world leader in offshore wind. It is the second largest offshore wind market in the world and represents more than 40 per cent of installed European offshore wind capacity. Offshore wind has a key role to play in providing secure, clean, affordable, homegrown electricity to UK homes and business. It is also vital to the ambition of decarbonising the UK's energy system by 2030 and achieving net zero by 2050. A recent study¹ shows that wind power has saved UK consumers more than £100 billion since 2010 by reducing wholesale prices.

The UK is also the leading player in subsea electricity interconnectors, with a strong track record of developing and operating interconnector projects over many years. These high-voltage cables link the GB electricity grid with other European countries, allowing power to flow across borders to where it is most needed. Today, interconnectors supply around 14 per cent of UK electricity demand and provide security of supply at times of high demand².

MPIs enable offshore wind and interconnector technology to work in harmony as a single hybrid offshore asset. Combining the two technologies offers a range of benefits: minimising the impact of infrastructure on energy bills, local communities and the environment, while also strengthening energy security. An independent study has shown that progressing three MPIs could deliver a benefit of €15 billion to the UK and connected countries³.

Despite the identified benefits and existing precedents elsewhere in Europe, there are still no approved MPI projects in GB waters. In this report, the industry Task Force identifies several blockers for this and recommends a set of actions to help unlock MPI projects.

1.1 What are multi-purpose interconnectors?

MPIs consist of an offshore cable connecting a wind farm in GB waters to the GB shore, and another offshore cable connecting the wind farm to another country, as per Example C in the diagram below. At present coordination has only been possible with wind farms in European waters, as shown in Example B and discussed in section 1.2 of this report (see LionLink).

Different stages of offshore wind farm and interconnector coordination

A. Coordination in European waters only – Offshore hybrid asset without GB wind



- 1) Offshore wind farms with a dedicated connection
- 2) Point-to-point interconnector

B. Coordination in European waters only – Offshore hybrid asset without GB wind



- 1) Offshore wind farm in GB waters connected via a dedicated connection
- 2) Offshore hybrid asset connecting an offshore wind farm in European waters

C. Coordination in GB waters – An MPI



- 1) MPI connecting a GB offshore wind farm (plus in this case also a European wind farm).

Potential benefits of MPIs

Development of MPIs could bring important benefits to GB and to consumers. MPIs connect supplies of offshore wind energy to the GB network and enable the exchange of electricity between GB and other countries.

Electricity flows in either direction depending on system needs, helping to balance supply and demand across borders. This combination contributes lower energy bills, together with a reduced impact on local communities and the environment.

Key benefits include:

Energy security

- A reliable flow of electricity that can be turned up or down as required
- A higher proportion of electricity generated from the North Sea via offshore wind

Affordability

- Significant cost reductions by using shared assets and connection clusters
- Faster and cheaper integration of offshore wind

Sustainability

- A practical, large-scale step in the transition to clean power
- Access for consumers to renewable energy from domestic and overseas markets
- Smarter coordination of projects to improve public acceptance
- Reduced consenting requirements with fewer projects delivering higher value

Environmental impact

- Speeding up decarbonisation with more GB generation coming from offshore wind
- Reducing grid reinforcement on a like-for-like basis
- Lower impact on coastal communities with fewer connections and less construction

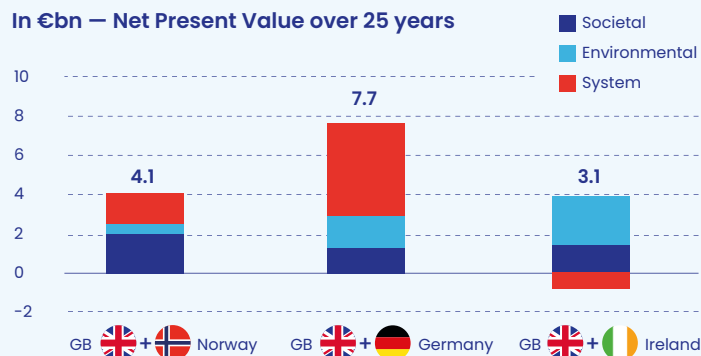
AFRY study on quantifying the benefits of potential MPIs

An AFRY study considered the potential benefits of building MPIs, assuming that offshore wind farms would be built in any case.



Using NESO's views on GB's path to net zero, AFRY found that MPIs connecting to Norway, Germany and Ireland could each deliver billions of pounds in benefits to both GB and connecting countries.

In €bn — Net Present Value over 25 years



The current picture: Offshore wind

- At present, GB has 16 GW of offshore wind in operation, supplying over 17 per cent of the country's electricity demand.⁴
- Offshore wind capacity is expected to more than double by the end of this decade, with a UK Government target of 43 GW to 50 GW. To reach net zero by 2050, up to 105 GW of offshore wind could be needed.⁵
- Wind power saved GB consumers more than £100 billion from 2010 to 2023 by reducing wholesale prices, an average of £8 billion a year.⁶

The current picture: Interconnectors

- GB has 10 interconnectors in operation, with a combined capacity of 10.5 GW. Interconnectors supply around 10 per cent of Britain's electricity demand and provide security of supply at times of high demand.⁷
- It is estimated that 12 GW to 14 GW of interconnection capacity will be needed by 2030, rising to 17 GW to 24 GW by 2040.⁸
- An independent study by FTI Consulting demonstrated that the benefit of interconnectors to GB consumers was at least £9 billion a year, based on 2022 data.⁹

A study commissioned by the Department of Energy Security and Net Zero shows that coordinated offshore networks could save UK consumers up to £16 billion by 2050¹⁰. Looking at MPI projects to European nations, an AFRY study for this report found that three potential MPIs could deliver €15bn benefit to GB and the connected countries.

The UK is not alone in its significant ambition for offshore wind and interconnection. The North Sea countries, through the Ostend Declaration, committed to achieving 120 GW of offshore wind by 2030 and 300 GW by 2050. This includes developing offshore hybrid assets to transform the North Sea into a green power plant of Europe.

1.2 Status of multi-purpose interconnectors

GB policymakers recognise the benefit of greater offshore coordination, as shown in the conclusions of the Offshore Transmission Network Review.¹¹ In particular, the UK Government used the Energy Act 2023 to make MPIs a licensable activity, highlighting their support for MPIs.¹²

Lionlink as a pilot offshore hybrid asset

LionLink is an offshore hybrid asset that will link GB and the Netherlands via an interconnector while directly connecting a wind farm in Dutch waters. With an expected capacity of 2 GW, once completed it will be the world's largest offshore hybrid asset. It is expected to have a total socio-economic welfare impact between £1.6bn and £2.7bn¹³.

The project is being developed by National Grid and TenneT, the Dutch Transmission System Operator. In the UK, Ofgem approved LionLink as a pilot project for hybrid interconnectors. The development of LionLink will provide valuable learning for the development of other Offshore Hybrid Assets, including MPIs. LionLink is currently in the planning and permitting phase, and it is expected to be in operation in the early 2030s.

In parallel, more progress has been made via the MPI Framework Discussion Group, co-chaired by DESNZ and Ofgem, including consultations on future trading arrangements and regulatory regimes.

Despite these early positive steps, both offshore wind developers and interconnector developers still face significant blockers when attempting to coordinate into an MPI. This is in contrast with the situation where each party develops its own project independently, which follows well established regimes.

Experience elsewhere in Europe shows what can be achieved. Offshore hybrid assets already exist in other countries, including the Kriegers Flak Combined Grid Solution linking Germany and Denmark. This connection by Energinet (Denmark) and 50Hertz (Germany) connects wind farms located in different countries. Together with progress on LionLink, this demonstrates that hybrid interconnection between GB and European neighbours is achievable and drives tangible benefits for consumers.



Image Credit: National Grid

MPI blockers and proposed solutions

What are the key challenges that will restrain development of MPIs in GB? In this chapter, we examine seven specific blockers, covering delivery, cost and revenue. We also set out recommended solutions to overcome these hurdles.

2.1 Delivery

How it works today

GB wind developers first obtain a seabed lease by participating in auctions run by The Crown Estate or Crown Estate Scotland. They then obtain a connection from the National Energy System Operator (NESO). They develop their project, including obtaining planning consent, until they are ready to participate in the UK Government's Contracts for Difference auction. With a Contracts for Difference secured, wind farm developers move into construction and operation.

Interconnector developers work with a European network operator to develop an interconnector project and get a connection from NESO. They then go through Ofgem's project assessment. After Ofgem's initial approval they obtain a seabed lease. They develop their project, including obtaining planning consent, until they are ready for Ofgem's final assessment. With final approval secured, the project then moves into construction and operation.

Delivery model

MPI blocker: There is no process to enable co-ordination between GB offshore wind farms and interconnectors. A key issue is the interaction between the seabed lease and the regulatory and government processes.

Currently, there is no delivery model to provide MPI coordination for either current or future MPI projects. For instance, the seabed lease is either allocated to the wind developer via a seabed auction or to the interconnector developer via a contract following regulatory approval. There is no established process to align them. Regulatory assessment of new interconnector projects happens every four years on average. This timing is not aligned to the UK Government's annual Contracts for Difference auctions for offshore wind.

MPIs need a joint delivery model that brings together the policy schemes of offshore wind and interconnection.

This includes alignment on the seabed lease, the grid connection, the regulatory approval of transmission and the Contracts for Difference allocation for offshore wind.

Recommended solution: Design a new process to drive MPI coordination and test it via a regulatory pilot, with two models proposed in this report.

2.

The Task Force recommends a pilot process as the best way to deliver the first MPIs. This process should be opened by Ofgem as early as possible in 2026. Moving at pace is important for the UK to remain aligned with the coordination ambitions of other North Sea countries. We recommend that the pilot should be supported by DESNZ, NESO, The Crown Estate and The Crown Estate Scotland, as they all have a key role to play in the development of MPIs.

The role of strategic energy planning in Great Britain

NESO's Strategic Spatial Energy Plan is a blueprint for Great Britain's future energy system, commissioned by the UK, Scottish, and Welsh Governments. It will identify the optimal locations, types, and quantities of energy infrastructure needed for a zero-carbon future.

We propose that an Ofgem MPI pilot should be opened in 2026, in parallel with the finalisation of NESO's Strategic Spatial Energy Plan. Pilot project applications could then be assessed against the finalised 2027 plan. This would ensure timely approval of projects to coordinate North Sea infrastructure.

Approved MPI pilot projects should then be added to NESO's Centralised Strategic Energy Plan, which is expected in 2028.

"The benefit case for MPIs is strong with the real challenge being implementation. Regulatory policy and the market framework require fundamental change, but the prize is worth it. We have to start now."

—
Joe Dunn

Head of Grid & Regulation — ScottishPower Renewables

To support a pilot, the Task Force has developed two coordination models for consideration:

Option 1: Coordination by design:

- An MPI is developed from the outset with a defined process to invite interested wind farm bids.
- The interconnector developer will seek the seabed lease and design the MPI with a partnering country. At the right time, the developer will welcome wind farms' interest.
- This process is currently in place in European countries like the Netherlands and Germany. In this model, the wind farm involvement could happen after final regulatory approvals, or in a staged process culminating with a Contracts for Difference auction.
- **It would require a new process for the interconnector developer to access a seabed area for coordination, and eventually a seabed lease.**

Option 2: In-flight coordination:

- An existing wind farm intends to coordinate to form an MPI. It has a seabed lease but has not begun its procurement process.
- It will partner with an interconnector developer, share its seabed lease, and they will develop the MPI together.
- The wind farm will then apply for a Contracts for Difference alongside radially connected wind farms, enabling competition that helps secure better value for GB consumers.
- **This will require a new process to partially transfer the seabed lease from the wind farm to the interconnector developer.**

These two models offer different advantages and challenges in terms of confirming parties' interest, design efficiency, and competition in Contracts for Difference. More details and variances are set out in the appendix. The Task Force recommends that the next step is to develop the models further and to prioritise the policy changes needed for each.

Grid connection

MPI blocker: When GB wind farms and interconnectors coordinate, their connection dates will be reassessed. This potentially moves them to the back of the connections queue.

Connections reform is a major overhaul of the electricity transmission connection process in GB, led by NESO.

It replaces the old ‘first-come, first-served’ system with a ‘first ready and needed, first connected’ approach to optimise GB’s transmission grid.

Connections reform is an important step to meet the energy needs of current and future consumers, however it is vital that it does not disincentivise MPI coordination.

For offshore wind projects seeking to coordinate in flight, the change from an uncoordinated to a coordinated project could result in being moved to the back of the queue, pushing back the connection date by several years. This issue does not exist for projects under the ‘coordination by design’ model.

Recommended solution: Maintain connection dates for projects that have chosen coordinated options.

A connection process that enables MPI coordination needs to be anchored in consumer benefits. In flight coordination should be supported, by maintaining existing connection dates for projects seeking to coordinate.

Changes to MPI design should be allowed where there is clear consumer benefit. MPIs involve coordination with both offshore wind and the connecting country. During the development phase, there is scope for project enhancements that could benefit consumers, including changing the connection location.

Finally, MPI projects that receive regulatory approval should be treated as needed. This means they should receive a firm NESO connection offer.

“Multi-purpose interconnectors can provide significant benefits to GB consumers. The Task Force has outlined key policy recommendations to address blockers preventing these projects today. We look forward to working with policymakers in taking these recommendations forward”

—
Christopher Fox

Head of Policy & Regulation, UK Power — Equinor

Asset availability

MPI blocker: As assets will be shared by several parties, availability of those shared assets is critical for all. At present no GB policy mechanism exists that delivers availability incentives for MPIs.

The operation of MPI assets will be coordinated to limit costs for consumers and lower the impact on coastal communities. Some assets will be shared. For example, the cable connecting a GB wind farm to the GB network will be used both by the wind farm to carry electricity and by the interconnector owner to enable power to flow across borders when the wind is not blowing.

Recommended solution: Clarify availability incentives, building on current approaches.

It is important that these shared assets have high availability levels, but there is currently no GB policy mechanism to provide availability incentives for MPIs. There are regulatory regimes in GB which include availability incentives. This includes the Offshore Transmission Owner regime with a 98 per cent availability target and the Cap and Floor regime with a target based on the length of the interconnector, currently ranging from 93 per cent to 97 per cent. Both include transmission revenue upside and downside compared to the target.

An availability incentive could be part of the MPI regime. The Task Force proposes three actions to support development of these incentives:

1. Encourage cooperation between MPI parties.

The transmission developer and the offshore wind developers will benefit from working together closely to resolve any planned or unplanned unavailability. This could, for example, include cooperation in repair vessels.

2. The overall target should reflect ‘first-of-a-kind’ technology. There are new assets in an MPI that are not present in existing offshore wind farms or interconnectors. New technologies require separate assumptions and manufacturer data should be considered.

3. Use industry benchmarks where available. To set targets for each interconnector, Ofgem commissions a technical analysis, reflecting the latest international data on availability. This practice could also apply to MPIs.

The MPI regime should also specify provisions for the end-of-life of each asset. operational life of different parts of the MPI may vary depending on technical and commercial considerations. It is important that consumers continue to benefit from the available MPI assets for as long as possible.

“The Task Force is an excellent initiative, setting out what is needed to move MPIs from concept to reality. We have the recommendations, now it’s time for Government, Ofgem and industry to come together and act.”

—
Rebecca Barnett
Partner — Flint Global

2.2 Cost

How it works today

GB wind developers buy wind turbines and transmission infrastructure. Infrastructure is then sold via Ofgem’s Offshore Transmission Owner regime. During operation, wind farm developers pay local network charges to reflect the cost of assets that enable their connection to the network, plus wider network charges that reflect the cost of the overall transmission system.

Interconnector developers buy subsea cables and the onshore infrastructure. They do not pay network charges as interconnectors act as a network themselves.

Coordination of investments

MPI blocker: For efficient development, some assets may need to be bought or built earlier by one party to the benefit of all.

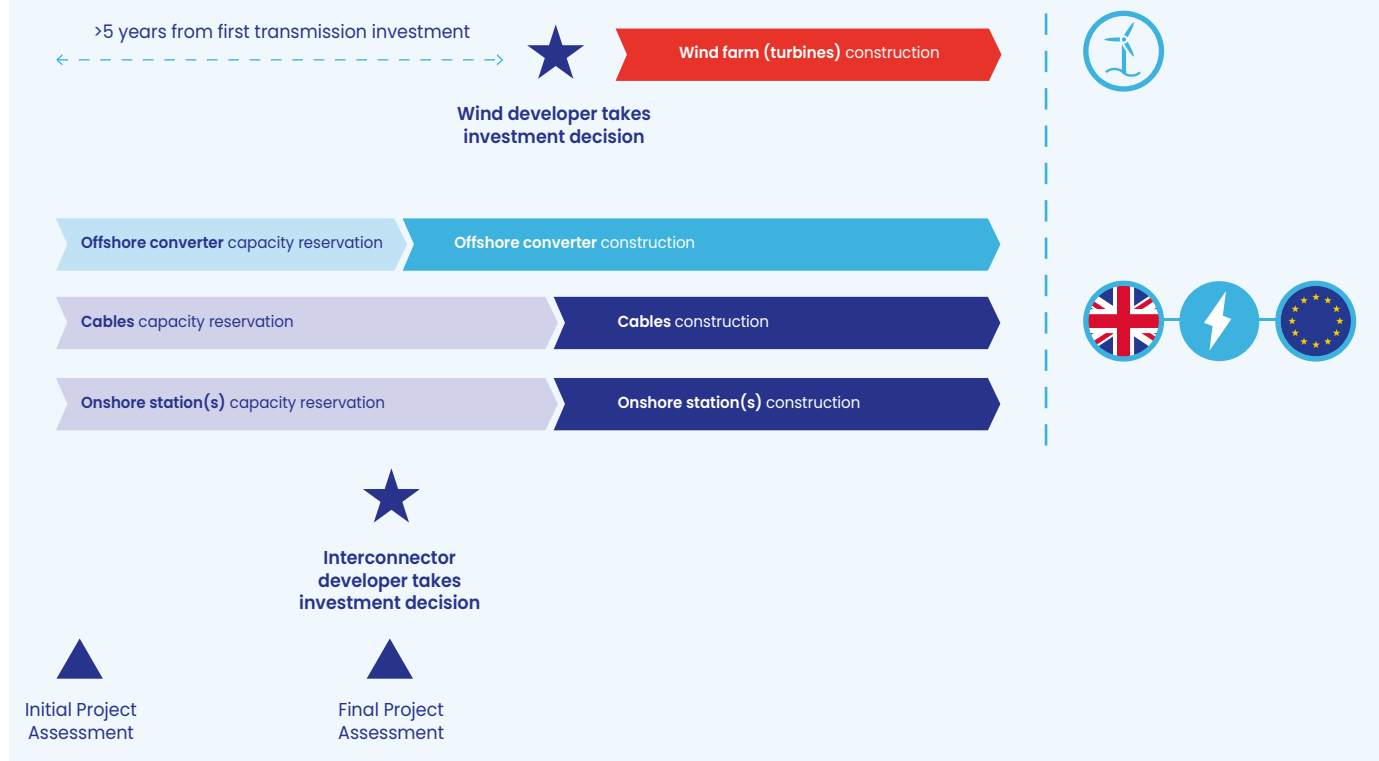
MPIs need strong coordination on infrastructure build.

Some investments to benefit all MPI users must take place earlier to be more economically efficient.

This coordination of investments can create an imbalance of risk. For example, at present, financial commitments for the offshore platform and offshore converter station are needed several years ahead of those for wind turbines. These assets have high complexity and longer procurement lead times.

Early investment decisions can add to the risk for the interconnector developer. The risk exists until the offshore wind developer has sufficient certainty on their revenues from Contracts for Difference, costs and delivery to financially commit to the MPI.

Some assets will need to be procured earlier than others to the benefit of all



Recommended solution: Provide certainty on the recovery of efficiently incurred investments for coordination.

In the past, public funding has been provided to cover costs related to coordination of GB offshore projects. For instance, the Offshore Coordination Support Scheme from the UK Government aimed to provide grants to offshore energy projects to develop coordinated options for offshore transmission infrastructure.

This public support could be provided again, with certainty of incremental costs of the MPI projects versus an uncoordinated approach, ensuring all parties can fully support coordination. Such certainty for the recovery of investments could be provided by Ofgem or an alternative public body, such as the National Wealth Fund or GB Energy.

“Unlocking the benefit of MPIs requires developers to take on risk to coordinate infrastructure in the most effective way. A risk transfer mechanism, e.g. a support scheme or grant, would reduce investment risk and would be an important step forward.”

—
Matthew Grant
 Partner — Baringa

Network charges

MPI blocker: Lack of clarity on the network charges wind farms will pay.

MPIs have the potential to reduce the cost of offshore infrastructure to GB consumers. This is because some transmission assets are shared between the interconnector and the wind farm.

However, sharing of assets also means that there is currently a lack of clarity on offshore network charges for wind developers in MPIs. This impacts the ability of offshore wind developers to create a business case and bid into Contracts for Difference auctions.

Recommended solution: Clarify offshore network charges for wind farms in MPIs.

General network charges are under review as part of the UK Government's reformed national pricing programme.

The Task Force recommends a solution focused on local charges in MPIs. This would involve the following baseline positions, in line with current charging:

- 1. NESO should continue to collect costs on behalf of transmission owners.** This is in line with the requirements of the current regulatory framework. The interconnector developer would not collect costs.
- 2. Offshore wind developers should pay charges for MPI assets associated with them.** This is consistent with the principles of the current network charges methodology. Wider charges would remain unchanged. Local charges should apply fully to assets solely serving the wind farm, like offshore converter stations.
- 3. Offshore wind farms should contribute a proportionate share of transmission charges for shared MPI assets based on usage.** A clear allocation method is needed for local charges of shared MPI assets. It should be based on an appropriate measure of costs and benefits.

“Multi-purpose interconnectors can provide significant benefits to GB consumers. The Task Force has outlined key policy recommendations to address blockers preventing these projects today. We look forward to working with policymakers in taking these recommendations forward.”

—
Tom Jones
CENOS Offshore Windfarm

2.3 Revenue

How it works today

GB wind developers sell their electricity at a single national price. To have revenue certainty they participate in the UK government's Contracts for Difference scheme. This guarantees a fixed price for energy produced when the GB price is positive.

Interconnector developers make revenue from selling the right to use the cable to move electricity between countries. Recent interconnectors have been developed under Ofgem's cap and floor regime. This sets a maximum and a minimum revenue. Revenues above the cap are paid to consumers, while revenues below the floor are topped up by consumers.

Offshore wind regime

MPI blocker: The Contracts for Difference scheme does not provide revenue stability for GB wind farms connected via an MPI.

The goal of the UK Government's Contracts for Difference scheme is to provide investment stability to renewable energy developers. It does this by protecting them from fluctuations in wholesale electricity market prices. At present offshore wind developers are not eligible for a Contracts for Difference if they are part of an MPI. **Even if they become eligible, in an MPI, the Contracts for Difference does not provide revenue stability against the price risks and volume risks to their revenues.** The risks are broadly linked to both price and volume:

1. Price risks: In MPIs, wind farms will likely face international competition. This competition will happen via the introduction of the Offshore Bidding Zones, which DESNZ and Ofgem have consulted on. These offshore zones aim to secure the best price for onshore consumers. However, international competition may lead to lower revenues for UK wind developers compared to projects connected radially.

2. Volume risks: In MPIs, the wind farm and the interconnector use the same cable. There could be instances where it is more cost-effective to import electricity rather than to use the cable for wind farm generation. An example could be when one country has surplus energy and negative prices. Consumers will benefit from accessing this cheap energy. However, this means that GB offshore wind developers will not be allocated the use of the cable, losing Contracts for Difference payments under the current design. This creates a risk for wind farm developers that they cannot control.

There could be times where being connected to two markets could be seen as beneficial for GB wind farms.

For instance, when wind farms are curtailed by domestic GB constraints, they could export generation. However, GB wind farms currently have protection for revenue loss from domestic curtailment.

Recommended solution: Adapt the Contracts for Difference scheme for wind farms connected via an MPI.

It is essential that offshore wind developers in an MPI are eligible for a Contracts for Difference. In addition, the Contracts for Difference design should provide appropriate risk mitigation for the wind farm from the price and volume risks arising from the international connection.

DESNZ has already consulted on a flexible Contracts for Difference that addresses the price risk. The overall benefits of MPIs identified in the AFRY study are net of any Contracts for Difference cost increase. This means that, with the right policy decisions, GB consumers can benefit from having GB wind farms in an MPI under a flexible Contracts for Difference.

Volume risk can be addressed by basing the Contracts for Difference on wind farm availability rather than output. This is being considered in the UK Government's reformed national pricing programme.

If this change were introduced nationally, it would mitigate the volume risk for wind farms in an MPI. As a relevant European example, a Contracts for Difference based on availability has been approved for use in Belgium.¹⁴ An alternative approach would be to allocate

the wind farm priority use of the cable based on forecast output. This would provide revenue certainty for offshore wind developers but might lead to occasional under-use of the MPI due to wind output forecast errors.¹⁵

Transmission regime

MPI blocker: A decision has not been reached on the regulatory regime for multi-purpose interconnectors.

To date, no decisions have been taken that enable a regulatory regime for transmission investment in MPIs.

The UK Government recognised the importance of MPIs in the Energy Act 2023 and Ofgem consulted on high level regimes in the same year. Clarity on a future regulatory regime is an essential next step.

There are existing UK regulatory regimes which can inform thinking around MPI transmission investment.

These include the Regulated Asset Base regime applicable to onshore networks and the Cap and Floor regime used

“The Task Force was conceived and led by the interconnector asset community and it took a while for the offshore wind developers to fully engage, however this changed substantially within a few weeks of working together.

“Bringing together two different industries in this way is a testament to the commitment, persistence and genuine desire of the organisations and individuals involved, including the government stakeholders.”

—

Mark Dixon
Director — Cerulean Winds

for interconnectors. Ofgem has also made significant progress in the last two years on the Narrow Cap and Floor regime and associated financial parameters that apply to offshore hybrid assets like LionLink.

Recommended solution: Develop an investable regime, specifically for MPI pilot projects, as successfully achieved for other asset classes.

An investable MPI regime is needed to unlock MPI investment. The expected return on investment should reflect the risk of developing and constructing an MPI. This could be achieved with either a Regulated Asset Base model or a modified Cap and Floor model. A Regulated Asset Base model could include incentives to ensure efficient MPI operation.

The transmission regime should work alongside a cost and revenue sharing agreement between GB and the connected countries. Proposals for cost and revenue sharing are being developed by the Offshore TSO Collaboration group. This includes GB representation. The proposals will be shared with governments via the North Seas Energy Cooperation forum. The forum provides a platform for North Sea governments, including the UK Government, to collaborate and unlock the region's full potential for renewable energy production.

“To attract the multi-billion pound investment needed to develop first-of-a-kind MPI pilot projects, we need to quickly find and agree on a bankable regulatory investment model. We believe that a RAB-based model, combined with appropriate incentives to maximise asset availability, is the most efficient approach that will keep cost of capital and required investment returns to a minimum.”

—
Kevin Rendell
Project Director — Windgrid



Image Credit: National Grid

Way forward and conclusions

The conclusions of the Wind and MPI Industry Task Force are summarised in the following table:

	Areas	MPI blocker	Potential solution
DELIVERY	Delivery model	There is no process to enable co-ordination between GB offshore wind farms and interconnectors. A key issue is the interaction between the seabed lease and the regulatory and government processes	Design a new process to drive MPI coordination and test it via a regulatory pilot, with several models proposed in this report
	Grid connection	When GB wind farms and interconnectors coordinate, their connection dates will be reassessed. This potentially moves them to the back of the connections queue	Maintain connection dates for projects that have chosen coordinated options
	Availability incentives	As assets will be shared by several parties, availability of those shared assets is critical for all. At present no GB policy mechanism exists that delivers availability incentives for MPIs	Clarify availability incentives, building on current approaches
COST	Coordination of investments	For efficient development, some assets may need to be bought or built earlier by one party to deliver overall benefit. This can create different risk levels, which need to be addressed	Provide certainty on the recovery of efficiently incurred investments for coordination
	Network charges	It is unclear what network charges the wind farm will pay	Clarify offshore network charges for wind farms in a multi-purpose interconnector
REVENUE	Offshore wind regime	The Contracts for Difference scheme does not provide revenue stability for GB wind farms connected via an MPI	Adapt the Contracts for Difference scheme for wind farms connected via an MPI
	Transmission regime	No decision on the regulatory regime for MPIs	Develop an investable regime, specifically for MPI pilot projects, as successfully achieved for other asset classes

MPIs have been recognised in UK law since 2023. However, despite offering significant benefits to GB consumers in terms of energy security, affordability and sustainability, the UK has yet to progress with MPI development. The way forward is now clear.

The blockers identified in this report highlight the need for coordinated action by policymakers to unlock the potential of MPIs. The challenges are well-understood can be solved. The recommended solutions proposed by the Task Force provide a roadmap for what is needed.

Establishing an MPI pilot window in the coming months is the first step. This will ensure that GB pilot projects can keep pace with North Sea partners internationally and secure the benefits of MPIs here in the UK. In parallel, the MPI blockers and recommended solutions (detailed overleaf) should be addressed.

The Task Force welcomed collaboration with policymakers on MPIs over the past 12 months. Industry stands ready to work with policymakers to identify MPI opportunities, implement the necessary reforms, and deliver on the benefits of MPIs.

There is an exciting opportunity ahead to keep the UK at the forefront of offshore wind and interconnector development. With an MPI pilot opening in early 2026, and key policy decisions on MPIs being reached by the end of 2026, development investments on MPIs could begin as early as 2027.

Appendix — Delivery model details

1. Coordination by design for future offshore wind projects

Step	Who	What?
1	Project designed for UK wind area	<ul style="list-style-type: none"> • Interconnector Developer • The Crown Estate • Crown Estate Scotland
		<ul style="list-style-type: none"> • The interconnector developer and its European partner jointly develop the project • This includes the expected connection to a UK offshore wind area identified by The Crown Estate or Crown Estate Scotland
2	Pilot initial assessment	<ul style="list-style-type: none"> • Ofgem • NESO
		<ul style="list-style-type: none"> • Ofgem opens a pilot window and jointly with NESO conducts an initial assessment, informed by the Strategic Spatial Energy Plan • For approved projects, Ofgem or an alternative body underwrites the initial coordination investment
3	Connection firm up	<ul style="list-style-type: none"> • NESO
		<ul style="list-style-type: none"> • NESO provides a firm connection offer for approved pilot projects • NESO adds the approved pilot projects to its Centralised Strategic Network Plan
4	Seabed lease granted for transmission	<ul style="list-style-type: none"> • The Crown Estate • Crown Estate Scotland
		<ul style="list-style-type: none"> • The Crown Estate or Crown Estate Scotland agree on a seabed lease for the interconnector part of approved pilot projects
5	Pilot final assessment	<ul style="list-style-type: none"> • Ofgem
		<ul style="list-style-type: none"> • Ofgem undertakes a final project assessment • For approved projects, Ofgem or an alternative body underwrites the remaining coordination investments
6	Final Investment Decision (interconnector)	<ul style="list-style-type: none"> • Interconnector Developer
		<ul style="list-style-type: none"> • The interconnector developer takes a Final Investment Decision and makes financial commitments with the supply chain
7	Seabed lease and Contracts for Difference auction for offshore wind	<ul style="list-style-type: none"> • The Crown Estate • Crown Estate Scotland • DESNZ
		<ul style="list-style-type: none"> • The Crown Estate, Crown Estate Scotland and DESNZ run seabed and Contract for Difference auctions for offshore wind • This could be two separate auctions or a combined auction where the Contract for Difference winner gets a combine seabed lease and Contract for Difference
8	Final Investment Decision (offshore wind)	<ul style="list-style-type: none"> • Wind Developer
		<ul style="list-style-type: none"> • The offshore wind developer takes a Final Investment Decision and makes financial commitments with the supply chain

High level assessment

Advantages	Risks
Provides certainty for offshore wind by having the transmission developed in advance	Risk of stranded infrastructure if the auctions do not attract offshore wind developers
Creates opportunities for new offshore wind entrants and a more competitive market	Risk of inefficient design as the offshore wind developer is known at a later stage

Further considerations

To reduce the risks of stranded assets and inefficient design, offshore wind developers could be invited to give their input into transmission design. This could take the form of a tender for design partners. Decisions on who would run the tender and how many design partners would be chosen requires further discussion.

2. Coordination in flight for current offshore wind projects

Step	Who	What?
1	Project designed for UK wind area	<ul style="list-style-type: none"> • Interconnector Developer • Wind Developer <ul style="list-style-type: none"> • The interconnector developer, its European partner and the UK offshore wind developer jointly develop the project • This includes the expected connection to the UK wind farm
2	Pilot initial assessment	<ul style="list-style-type: none"> • Ofgem • NESO <ul style="list-style-type: none"> • Ofgem opens a pilot window and jointly with NESO conducts an initial assessment, informed by the Strategic Spatial Energy Plan • For approved projects, Ofgem or an alternative body underwrites the initial coordination investments
3	Connection firm up	<ul style="list-style-type: none"> • NESO <ul style="list-style-type: none"> • NESO provides a firm connection offer for approved pilot projects • NESO adds the approved pilot projects to its Centralised Strategic Network Plan
4	Seabed lease granted for transmission	<ul style="list-style-type: none"> • The Crown Estate • Crown Estate Scotland <ul style="list-style-type: none"> • The Crown Estate or Crown Estate Scotland agree on a seabed lease transfer for the transmission part of the pilot projects • The transfer comes from existing seabed lease held by the offshore wind developer
5	Pilot final assessment	<ul style="list-style-type: none"> • Ofgem <ul style="list-style-type: none"> • Ofgem undertakes a final project assessment • For approved projects, Ofgem or an alternative body underwrites the remaining coordination investments
6	Final Investment Decision (interconnector)	<ul style="list-style-type: none"> • Interconnector Developer <ul style="list-style-type: none"> • The interconnector developer takes a Final Investment Decision and makes financial commitments with the supply chain
7	Contracts for Difference auction	<ul style="list-style-type: none"> • DESNZ <ul style="list-style-type: none"> • DESNZ runs a Contracts for Difference auction for offshore wind • This could be within the general offshore wind pot given that the offshore wind developer is already determined
8	Final Investment Decision (offshore wind)	<ul style="list-style-type: none"> • Wind Developer <ul style="list-style-type: none"> • The offshore wind developer takes a Final Investment Decision and makes financial commitments with the supply chain

High level assessment

Advantages	Risks
The partnership enables clearer alignment and accountability from the outset	Risk of stranded infrastructure if the offshore wind developer does not proceed with the project
Existing seabed leases and connection offers can be used efficiently	Risk of limited like-for-like Contracts for Difference competition as the offshore wind farm is known from the start (but overall competition in the general offshore wind pot)

Further considerations

To reduce the risk of stranded assets, the offshore wind developer could be asked to make a joint financial commitment with the transmission developer on supply chain capacity reservations. This would require the offshore wind developer to have early certainty on revenue, cost and delivery. The potential viability of this approach would have to be tested with an actual project programme.

Endnotes

- 1 [University College London, 'Wind power has saved UK consumers over £100 billion since 2010', 2025](#)
- 2 [Digest of UK Energy Statistics, 2025](#)
- 3 AFRY, 'Cost Benefit Analysis of UK Offshore Hybrid Assets, 2025 (published alongside this report)
- 4 [RenewableUK, 'Energy Pulse', 2025](#)
- 5 [NESO, 'Future Energy Scenarios: Pathways to Net Zero' 2025](#)
- 6 [University College London, 'Wind power has saved UK consumers over £100 billion since 2010', 2025](#)
- 7 [Digest of UK Energy Statistics, 2025](#)
- 8 NESO, 'Future Energy Scenarios: Pathways to Net Zero' 2025
- 9 FTI consulting, An assessment of the benefits of interconnectors to Great Britain in 2022, available upon request
- 10 [Grant Thornton, 'A holistic overview of the UK's offshore renewables potential, and international North Sea cooperation', 2023](#)
- 11 [Offshore Transmission Network Review: summary of outputs, 2023](#)
- 12 [Energy Act 2023, section 205](#)
- 13 [Ofgem, 'Decision on the Initial Project Assessment of the Offshore Hybrid Asset Pilot Projects', 2024](#)
- 14 [European Commission, 'Commission approves €682 million Belgian State aid scheme to support renewable offshore wind energy to foster the transition to a net-zero economy', 2024](#)
- 15 This approach is sometimes referred to as the "Home Market" design, by opposition to the "Offshore Bidding Zone" design where the wind farms compete with other generation in the bidding zone.



RenewableUK
6 Langley Street
London
WC2H 9JA
United Kingdom

T: +44 (0)20 7901 3000
E: info@renewableuk.com

nationalgrid

National Grid
1-3 Strand
London
WC2N 5EH
United Kingdom

T: +44 (0)20 7004 3000