

Interconnector Services

The electricity sector around the world is undergoing significant changes, increasingly driven by the decarbonisation agenda. For most countries, however, security of supply remains the number one priority, alongside the need to keep electricity affordable. Interconnectors are uniquely well placed to meet these challenges of sustainability, security and affordability.

Interconnector policy and regulation

- Design of regulatory regimes (including Cap and Floor in GB for interconnectors and Multi-Purpose Interconnectors)
- Policy design (e.g. incentives to increase interconnection)
- Energy market design (e.g. design of capacity market to incorporate interconnectors)

Quantitative analysis

- Power market fundamentals modelling
- Cost-benefit analysis (e.g. arbitrage revenues, Capacity Market, ancillary services)
- Socio-economic impact analysis
- Financial analysis (e.g. to support investment decisions)

Strategic support

- Advising on negotiations with regulators and policy-makers
- Assistance in applications for regulatory support (e.g. Cap and Floor, Capacity Market)
- Assistance in applications for regulatory exemptions (e.g. merchant interconnectors)

FTI Consulting Energy Services

- Strategy
- Policy and Regulation
- M&A and Due Diligence
- Disputes (Economic, commercial, technical)

Industry Challenges

Interconnectors are transmission assets that enable the flow of electricity across high voltage cables between different countries or regions. The economic rationale for interconnectors is driven by fundamental differences in the generation mixes between connecting regions leading to systematic electricity price spreads. Interconnectors also help deliver more efficient short-term balancing caused by short-term volatility of wholesale electricity prices, which will become more challenging as less predictable sources of generation, such as wind, come online.

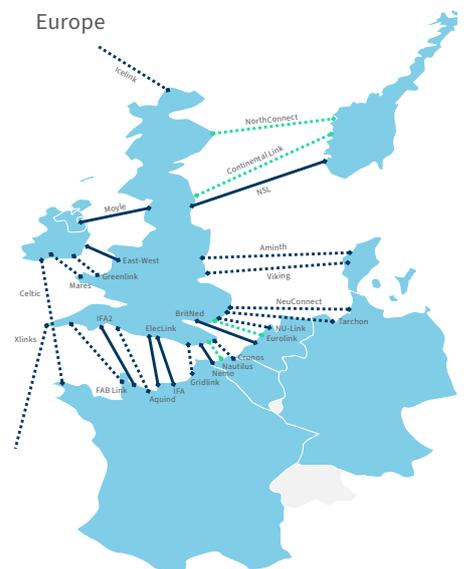
Interconnectors are beneficial both to consumers as they allow cheaper electricity to be imported at times of high local prices, and to generators by allowing generation to be exported at times of low local prices. They potentially support transitions to Net Zero targets by allowing renewable power to be exported to regions where it displaces carbon-intensive thermal resources. Interconnectors also enhance security of supply by providing access to additional generation capacity in a neighbouring region.

Existing and planned interconnectors

Australian National Electricity Market



Europe



Note: The landing points of the interconnectors shown above are illustrative only.

Combining interconnectors with other assets, such as offshore wind farms, in Multi-Purpose Interconnectors (“MPIs”) can make infrastructure asset investment more efficient, by enabling transmission cables to alternately export renewables towards demand centres, or operate as “pure” interconnectors, depending on how windy it is. MPIs can also reduce the number of individual connections at the shore, thus reducing the environmental and social impacts of connecting offshore assets.

Our Approach

We work with interconnector and MPI developers, regulators and investors on all aspects of the interconnector development lifecycle. We assist developers in understanding the economics of interconnector projects through the modelling of power sector fundamentals, allowing an assessment of the costs, benefits and risks of a project both to the developers and wider energy market stakeholders. We also help clients navigate the relevant regulatory regimes, and to shape these regimes where appropriate. These

frameworks are often highly complex as there are two (or more) sets of regimes that need to be brought together to apply to each interconnector, and many different stakeholders.

We have significant experience in engaging with energy regulators and governments on all aspects of regulatory issues, including design, application and refinements of regulatory regimes to help deliver the regulators’ statutory duties. In some cases, we also work with clients to gain an exemption from some aspects of the relevant regulations. We also help investors identify, assess and progress specific investment opportunities in the interconnector space. Our core experience lies in the European and Australian markets where our experts have worked with a number of interconnectors and investors, and increasingly further afield such as in the Far East.

	<p>Clients in 17 countries, including Australia, GB, Norway, Singapore, Japan and several EU members such as France, Denmark and Germany</p>
	<p>9 regulatory submissions</p>
<p>Advised on over 30 interconnectors across Europe, Australia and Asia, representing over 41 GW of capacity.</p>	
<p>Developed arrangements for interconnector participation in the GB Capacity Market</p>	
<p>Helped to develop the GB Cap & Floor regime for MPIs and interconnectors</p>	

Case Study

TASNETWORKS

THE CHALLENGE

Marinus Link is a 1.5GW proposed interconnector between Tasmania and Victoria, Australia, and it would be the second undersea cable connecting the two regions. We were engaged by TasNetworks, the project developer, to assess the consumer benefits of Marinus, and the impact of unlocking Tasmanian dispatchable (pumped hydro) and variable (wind) renewable generation into the National Electricity Market (“NEM”), to support a rapid decarbonisation strategy.

OUR INPUT

We assisted TasNetworks by deploying our in-house power modelling expertise to assess the likely benefits of Marinus to Australian consumers, focusing particularly on the wholesale price impact of the investment. Our modelling also included a detailed representation of Tasmania’s hydropower system and the potential development of the ‘Battery of the Nation’ pumped hydro scheme.

THE RESULT

We identified that the project was likely to deliver substantial savings for consumers across the NEM. These savings were estimated to be even higher in a scenario with accelerated decarbonisation policies. Our work has been used by TasNetworks in discussions with a range of stakeholders, including Hydro Tasmania and Tasmanian and central Governments.



Case Study



NEUCONNECT

THE CHALLENGE

NeuConnect is a planned 1.4GW interconnector that will for the first time connect two of Europe’s largest power markets, Great Britain and Germany. We were engaged by NeuConnect to provide support to the developer and its investors to assess the economic case for the interconnector ahead of Final Investment Decision, and to support NeuConnect in relation to its regulatory discussions with Ofgem (Final Project Assessment under the Cap and Floor regime).

OUR INPUT

We supported NeuConnect through a range of commercial analyses to develop a detailed understanding of the economic rationale of the project, both for the owner and for consumers. This included fundamental European power market modelling to assess the future arbitrage revenues for the project, its socio-economic welfare impact, and an assessment of the carbon reduction benefits of the project in the context of Net Zero targets ([link](#)).

THE RESULT

Our work supported NeuConnect in its engagement with investors, lenders and regulators, culminating in regulatory approvals under Ofgem’s Cap and Floor regime (Final Project Assessment) and the project reaching a Final Investment Decision.

Case Study



NATIONAL GRID – Multi-Purpose Interconnectors

THE CHALLENGE

National Grid, a leading interconnector developer and operator in GB, is leading the development of MPIs which would link interconnectors via offshore wind farms. As a new asset class in GB, MPIs have a more complex arrangement compared to conventional point-to-point interconnectors.

OUR INPUT

We evaluated a variety of scenarios across different markets, commercial arrangements and regulatory regimes. This focused on looking to understand how wholesale prices and socio-economic welfare benefits are affected by multiple factors, including the wholesale pricing regime applied to the offshore wind farms (“Offshore Bidding Zones”) under different project configurations.

THE RESULT

Our work supported National Grid’s overall interconnector strategy, as well as its regulatory engagement regarding MPIs.

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