



EIRGRID GROUP RESPONSE TO:

OFGEM Consultation on Electricity Interconnector Policy

30th March 2010

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1 Introduction

The EirGrid Group welcomes Ofgem's consultation paper on Electricity Interconnector Policy and would like to thank Ofgem for the opportunity to comment on the paper.

EirGrid holds licences as independent electricity Transmission System Operator (TSO) and Market Operator (MO) in the wholesale trading system in Ireland, and is the owner of the System Operator Northern Ireland (SONI Ltd), the licenced TSO and MO in Northern Ireland. The Single Electricity Market Operator (SEMO), which comprises the two MO licensees, is also part of the EirGrid Group and operates the Single Electricity Market (SEM) on the island of Ireland. EirGrid is currently developing a 500MW electricity interconnector between Ireland and Wales, for the operation of which it has been granted a licence by Ofgem, and is also working on major upgrades to the transmission network, as part of its GRID25¹ strategy.

Ofgem's consultation is of particular relevance to EirGrid as owner and operator of the fully regulated future East-West Interconnector (EWIC), scheduled to be operational in 2012. EirGrid in its role as owner and operator of the East-West Interconnector and SONI as operator of the Moyle Interconnector, will seek to ensure that any regional approach taken optimises the use of interconnection and delivers benefits for end customers in both GB and Ireland. Together the East-West Interconnector and Moyle will provide 1,000MW of interconnection capacity between GB and Ireland, and EirGrid is exploring the options for further interconnection between Ireland and either GB and/or France as highlighted in our Interconnector Economic Feasibility Report, published in November last year.

The potential benefits of further interconnection are well understood, and include enhanced security of supply, increased competitiveness, reduced production costs, and the ability to integrate greater quantities of renewable generation resources. For these reasons emerging EU policy is to support

¹ EirGrid's Grid Development Strategy, GRID25, is a major initiative to put in place safe, secure and affordable electricity supply throughout Ireland.

further interconnection between power grids, leading to enhanced market integration, first at regional level but ultimately across Europe as a whole. It is imperative that all key stakeholders in GB and Ireland work together to deliver on a co-ordinated SEM-BETTA trading solution to maximise the benefits of interconnection, with increased efficiencies in capacity allocation and improved system security.

The publication of the Ofgem Project Discovery Consultation on options for delivering secure and sustainable energy supplies highlights concerns over supply security from 2015 onwards. Based on EirGrid and SONI's most recent assessments of generation adequacy², a capacity surplus is anticipated in SEM from 2015. By increasing the level of regional integration between GB and Ireland we can deliver benefits for customers in both markets, in terms of enhanced fuel diversity, price arbitrage opportunities and increased renewable penetration.

The EirGrid Group is also aware of Ofgem's consultation on Liquidity Proposals for the GB wholesale electricity market. We would support measures to improve wholesale liquidity in GB as this would further facilitate greater levels of interconnector trading between SEM and GB. Greater interconnection furthers both the objectives of Project Discovery and those of Liquidity Proposals for the GB wholesale electricity market, namely, the delivery of sustainable and secure energy supplies at affordable prices.

EirGrid and SONI as the transmission system operators and market operator in SEM have key roles to play in the development and implementation of any regional integration solution between GB and SEM within the FUI region (or indeed a wider European region encompassing North West Europe if the FUI regional shape is repositioned). The model for the development of interconnection faces unique challenges in the context of an island economy and both the island of Ireland and GB are alike in that regard. We are fully

² EirGrid Generation Adequacy Report 2010-2016 <http://www.eirgrid.com/media/Generation%20Adequacy%20Report%202010-2016.pdf> & SONI Seven Year Generation Capacity Statement 2010 – 2016 <http://www.soni.itd.uk/upload/Seven%20Year%20Generation%20Capacity%20Statement%202010-16.pdf>

involved in the debate and policy formation in Europe and will continue to represent the interests of all electricity consumers on the island of Ireland.

2 Background

The importance of regional integration of electricity markets is central to the European Commission's vision of a single electricity market for Europe and there has been a significant amount of work done in the past number of years. This has been achieved via ERGEG's Electricity Regional Initiatives and from bilateral and multi-lateral initiatives between Member States to cooperate and co-ordinate on cross-border issues. The development of the Single Electricity Market (SEM) on the island of Ireland is a perfect example of this regional integration of electricity markets and represents a significant contribution by both jurisdictions in helping to fulfil the European Union's objective of creating a single European electricity market.

2.1 European Regional Integration

Ofgem's consultation on Interconnector policy for GB is timely given the significant developments in cross border trade of electricity in Europe. The Third Energy Package places firm obligations on TSOs to cooperate and co-ordinate on cross border capacity allocation and congestion management. The regulation of new interconnector investment and the efficient use of interconnectors are key considerations in this regard.

As an active member of ENTSO-E, EirGrid is fully aware of developments at the European level. Following the Florence Forum in December 2009, an Ad Hoc Advisory Group (AHAG) has been established to progress the work already done by the Project Coordination Group (PCG) on the development of a Target Model for cross border capacity allocation and a roadmap for implementation across Europe. The AHAG is effectively tasked with the development of the Framework Guidelines on capacity allocation and congestion management. It will focus on three key areas: capacity calculation, intraday trade (both led by ENTSO-E) and day-ahead market

coupling (led by the EU Commission). ENTSO-E will be tasked with developing the network code on capacity allocation and congestion management which will be binding on all TSOs.

The vision of a European target model will require TSOs, regulators and other stakeholders in neighbouring markets to develop a coordinated approach to cross border capacity allocation, with policy decisions being made in cooperation with, or at least in consideration of, neighbouring markets. EirGrid supports this co-ordinated approach and considers that policy decisions taken in one market should fully take on board the implications for neighbouring markets.

2.2 SEM Regional Integration

The Single Electricity Market (SEM) went live on 1st November 2007, commencing the trading of wholesale electricity in Ireland and Northern Ireland on an All-Island basis. The SEM establishes a single wholesale market in which generators and suppliers of electricity on the island trade all their electricity on a daily basis through a centralised gross pool, regardless of their location on the island.

Cognisant of the need to ensure that the rules for trading between SEM and BETTA are in place prior to the completion of the East-West Interconnector in 2012, the SEM Committee³, with EirGrid's support, are currently exploring options to develop the SEM Rules to facilitate interconnector trading.

The SEM Committee published a consultation on SEM Regional Integration last September 2009 and decision paper in March 2010, covering some of the issues addressed in Ofgem's consultation.

This consultation paper proposed that the SEM Committee would:

- § engage with stakeholders and policymakers at the European level;

³ The SEM Committee comprises the Commission for Energy Regulation, the Northern Ireland Authority for Utility Regulation and two Independent Members.

- § develop with Ofgem a co-ordinated approach to congestion management and in particular the explicit auctioning of capacity on ICs;
- § bring forward options for amending the SEM's Trading and Settlement Code to maximise the benefits of interconnection and comply with the Congestion Management Guidelines; and
- § develop options for the market coupling of the SEM with neighbouring markets.

EirGrid in its response expressed the following view:

“Consideration of required developments for further integration of the SEM should now focus on how we can be compliant with the CMG in the short term, while also working towards further integration within Europe. The pace of regional integration and what is required in SEM to implement these changes should be developed in close cooperation with all stakeholders in the FUI region bearing in mind the costs of implementation of the different options on SEM customers. The PCG has developed a Target Model for 2015 and is currently working on a roadmap to achieve this. This provides a clear path for SEM and its neighbouring markets to follow. How quickly we follow this path should be a decision for the FUI region as a whole.”

Earlier this month, the SEM Committee published its decision on SEM Regional Integration (SEM-10-011). The decision prioritised immediate work in the following areas:

- Forward explicit auctions are to be co-ordinated with IFA and BritNed capacity auctions in cooperation with neighbouring markets.
- The SEM Committee are to consider options for establishing a day-ahead price in the SEM to enable trading by volume or price at the day ahead stage with power exchanges in neighbouring markets.
- Intraday trading will be developed in the SEM, given its importance in facilitating renewable generation and compliance with the Congestion Management Guidelines.
- A Trading and Settlement Code modification to facilitate intraday trading has been proposed by the Regulatory Authorities and will be

developed via a working group. Chief among its considerations will be the assessment of the alignment of intraday arrangements in the SEM with those on IFA and BritNed and the compatibility of the SEM design with the proposed intraday trading model envisaged by the Project Coordination Group (PCG) target model at the European level.

- Balancing arrangements will be co-ordinated on a regional basis where possible and will be compatible with intraday trading arrangements.

The decision paper therefore takes full account of the concerted move towards a standard European model for cross border capacity allocation across all timeframes, whilst acknowledging a number of issues particular to the SEM design which will need to be addressed.

3 Response to Questions

This section outlines the EirGrid Group's response to specific questions raised by Ofgem in its consultation paper.

3.1 Introduction

3.1.1 Response to Question 1.1

Have we accurately captured the benefits of and demand for new interconnection? Are the projects under consideration all viable? Would they be sufficient? Are there other projects being developed?

The EirGrid Group believes that the benefits of and demand for new interconnection have been captured well in the consultation paper.

Wales, like western Ireland, will have a high penetration of wind energy, with additional farms, both onshore and offshore planned, including the notable 750MW Gwynt y Môr offshore wind farm being developed off the coast of North Wales. Scheduled to begin producing power in 2012, it aligns with the completion date of EirGrid's East-West Interconnector. The East-West Interconnector will facilitate trading of this energy with the neighbouring

market geographically close to Wales, namely the All-Island Single Electricity Market (SEM). Trading with a geographically proximate market has the obvious advantage of the minimisation of the effect of transmission losses. Similarly, the bi-directional Interconnector will facilitate energy trading between the SEM and BETTA markets.

Some of the potential benefits the East-West Interconnector will bring to GB include:

- § Access to the neighbouring market close geographically to planned renewable generation
- § Accommodation of fluctuations in wind output
- § Trading arrangements developed between BETTA and SEM with co-ordinated congestion management and capacity allocation resulting in a more efficient allocation of capacity with resulting benefits to GB customers in terms of improved competition and system security
- § Provision of balancing and ancillary services

The EirGrid Group has also carried out an assessment of the costs and benefits of further interconnection between the island of Ireland and GB or France (in addition to the Moyle Interconnector and the planned East-West Interconnector). The Interconnection Economic Feasibility Report⁴, referred to in Ofgem's consultation, provides the results of this work. The analysis reinforces the very strong economic case for the planned East-West Interconnector for all years studied (2015, 2020 and 2025). A further (third) 500MW interconnector between AI and GB is economically attractive in 2020, and more so in 2025. A fourth 500MW interconnector between AI and GB is not economically feasible until 2025; even then, only some scenarios are feasible, such as High Renewables. A 500MW and 2 x 500MW interconnection between AI and France was modelled in 2015, 2020, and 2025. These studies indicated a high capacity factor for the Ireland-France interconnector, and corresponding reductions in production cost. However,

⁴ EirGrid Interconnection Economic Feasibility Report, November 2009. Available on the EirGrid website at: http://www.eirgrid.com/media/47693_EG_Interconnect09.pdf

these results need to be corroborated by more detailed modelling before any recommendations could be made on an Ireland-France interconnection.

The Moyle interconnector has an import capacity of 500MW and an export capacity which is currently limited to 80MW. With the introduction of the East-West Interconnector the total import capacity on the island of Ireland will be increased to 1,000MW and export capacity to 580MW, which will represent a significant portion of GB's total interconnection capacity by 2012.

EirGrid is also conducting other work that ultimately will feed into any future decisions on further interconnector investment. Notably, we are carrying out a study to assist with the development of an offshore wind integration strategy. This was alluded to in the consultation paper and it will be important to ensure that any policies put in place now do not undermine any potential developments in the offshore arena.

EirGrid is also involved, under the auspices of the Renewable Energy Development Group (REDG)⁵, in an assessment of the feasibility of developing a significant renewable energy export industry.

3.1.2 Response to Question 1.2

Are there other key aspects of the legal or regulatory framework that we should consider, or should some features be given a different emphasis?

The Third Energy Package sets out the legislative framework for existing and new interconnection (including exempt interconnection). It also places a firm responsibility on TSOs to develop a Ten Year Network Development Plan and provide a co-ordinated approach to cross border congestion management and capacity allocation. When considering any aspect of the legal or regulatory framework it will be important to identify where the key responsibilities and accountabilities lie to ensure the relevant stakeholder(s) is in a position to carry out and fulfil its obligations under the Third Package legislation.

⁵ An Irish governmental initiative

The East-West Interconnector has been granted an interconnector licence by Ofgem and a draft licence has been prepared by CER. It will be important to develop an efficient, and clearly accountable, approach to the regulation of interconnector projects where interconnectors will be licensed and regulated by national regulatory authorities (NRA) in two jurisdictions. While this is noted in the consultation paper (para. 3.4) we believe that in the overall thrust of the paper it does not receive the level of attention that it merits. EirGrid supports Ofgem's objectives of the need for a co-ordinated approach between two national regulatory authorities and that it is preferable at the outset a clear and predictable framework is set out. We believe that in the case of a regulated interconnector which is supported by underlying user tariffs in one or other jurisdiction then the Regulatory Authority which is underwriting the investment through charges to customers should take the lead in regulating the interconnected entity. This is something that EirGrid would be interested in exploring with both CER and Ofgem in respect of the East-West Interconnector, such that any arrangements put in place are co-ordinated and harmonised to the extent practicable and unnecessary duplication or requirement to meet different regulatory reporting standards, all of which bring greater costs, can be eliminated.

3.1.3 Response to Question 1.3

How can the Regional Initiative best contribute to development or implementation of policy? Do you agree with the priorities and approach outlined?

The ERGEG Regional Initiative process defines the FUI region as France, UK and Ireland. Section 1.24 of the paper notes that: "*The future of the regional initiatives is now under review and it is possible that this might lead to a re-definition of the shape of the regions, so GB could become part of another region.*" With the development of both BritNed and NEMO interconnection

between GB and continental Europe will link into a much larger North-West European inter-regional market with FUI, CWE and the Nordic region. This development from regional to inter-regional electricity markets is a key step forward to the creation of an internal energy market and should be supported. As a member of the FUI regional initiative, Ireland should be part of any future redefinition.

3.2 Efficient Use of Electricity Interconnections

3.2.1 Response to Question 2.1

Are the target models explained in this chapter appropriate for GB? What are the issues that need to be considered? Are there alternative approaches that would be better? Will the target models effectively accommodate increased intermittency?

The target model outlines the vision for regional European integration as agreed by all stakeholders in the Project Coordination Group (PCG) under the remit of the Florence Forum. It does not prescribe a one-size fits all approach but rather looks to develop a common and co-ordinated approach to congestion management and capacity allocation throughout Europe, within regions initially but also between regions where this is feasible and appropriate. The target model provides a roadmap for GB and other markets to follow, to ensure European electricity markets are converging, and provides an indication of the direction they should be taking to ensure greater co-ordination. Each market is at different stages of development and maturity and the appropriate approach for GB will not necessarily be the same as for other markets in Europe. This provides the flexibility for GB to adopt a regional market solution that is tailored to its needs in cooperation with other neighbouring electricity markets.

The viability of any interconnector project is strongly dependent on the trading mechanisms that are in place between the systems at either ends of the interconnector. While day-ahead markets work in some regions, with

increasing amounts of variable renewable generation, the presence of efficient intraday mechanisms are paramount.

The Target Model for Europe to date has focussed primarily on the day ahead market. However, the characteristics of each market will determine the emphasis placed on any one timeframe. The relative lack of a liquid day-ahead market and importance of accommodating intermittent generation in GB (and SEM), will most likely result in Ofgem providing a strong focus on intraday market arrangements for GB. The AHAG is working towards developing Framework Guidelines on congestion management and capacity allocation which include intraday and day-ahead arrangements. It is important to be at the forefront of these developments to influence policy at the European level.

One of the foremost challenges from a TSO perspective, with increased penetration of renewables, is the ability to manage intermittency. Currently in the SEM, unused interconnection capacity at the day-ahead stage after gate-closure is lost to market. The introduction of TSO balancing arrangements and intraday trading by interconnector users would provide a mechanism to optimise the use of capacity. This must be balanced with the need to ensure a safe, secure and reliable grid. In GB, Ofgem and National Grid are facing similar challenges and opportunities.

3.2.2 Response to Question 2.2

What should be our approach to firmness of interconnector capacity? Should this vary between new and existing interconnectors, or between regulated and exempt? What are the categories of costs and benefits from changing approach, where should they fall and can they be quantified?

The EirGrid Group considers that the approach to firmness of interconnector capacity should be in line with ENTSO-E's proposals on firmness provided to the AHAG in February 2010 and earlier in its paper "Firmness of cross-border

capacities and compensation schemes in case of curtailments”, published in January 2009⁶.

This approach to firmness provides that:

- In principle, following gate closure trade across interconnections should be firm, except in the case of Force Majeure or rights and obligations of TSOs in case of emergency situations.
- Compensation should be provided based on the initial cost of the capacity in accordance with the Congestion Management Guidelines which explicitly excludes the compensation of consequential losses.
- When defining the compensation in case of curtailment an appropriate balance of risks must be established between market participants, TSOs and end users. All market parties including TSOs, need to be appropriately incentivised to reduce overall risk and cost to the market.
- Regardless of the compensation scheme, the distribution of costs falling to TSOs must ultimately be covered by regulated tariffs so as not to jeopardise network security or provide a perverse incentive for reducing the level of cross-border capacity.

The EirGrid Group considers that capacity holders should be reimbursed the price initially paid for the capacity. Options such as the adoption of physical and financial firmness could expose the TSO(s), and ultimately the end consumer, to potentially penal system buy and sell prices in the GB balancing market or variable ex-post prices in the SEM in buying electricity to compensate the holder of the capacity. In GB, to offer full firmness on the IFA or BritNed (financial or physical) would potentially be very expensive. Under the current regulatory model, the cost of providing firmness would also be borne by the shareholders and not end-users through tariffs as is the case with regulated interconnectors.

⁶ Available on ENTSO-E website at www.entsoe.eu

3.2.3 Response to Question 2.3

Should we seek regional solutions rather than individual project solutions for access rules, such as through a broader North West European solution for market coupling? What are the priority areas for greater regional co-ordination?

Currently, Ofgem has granted interconnector licences to EirGrid and Moyle in addition to licences granted to BritNed and NGIL (IFA). However, Ofgem notes (section 1.4) that BritNed, IFA and Nemo are the Interconnectors which drove the considerations of this consultation paper. In order to maximise the benefits from further interconnection between GB and Ireland, and in light of the points raised above regarding the potential benefits of the East-West Interconnector to GB, the East-West Interconnector and Moyle should be included in any future considerations of GB interconnection policy.

The EirGrid Group fully supports a co-ordinated approach amongst North West European (NWE) electricity markets in developing a regional solution for access rules, bearing in mind local conditions.

The SEM as it currently stands does present some barriers to achieving market coupling in the short term, but as cited in the SEM Committee decision paper it may be possible to achieve these objectives with some low impact solutions/changes which do not radically change the SEM design. We look forward to working with our own and neighbouring Regulatory Authorities and TSOs to develop a roadmap for delivery of a solution which leads to greater integration with Europe.

3.3 Regulating New Interconnector Investment

3.3.1 Response to Question 3.1

Does this chapter capture the key issues in regulation of new electricity interconnectors? Should we assume that all new interconnectors will seek exemptions?

Under EU legislation it is clear that the default approach to interconnection is regulated interconnection. Exemptions for merchant interconnectors, although permitted in certain circumstances, are the exception to this rule and experience has shown that it may be difficult to apply in practice, with the European Commission often requiring additional conditions on the exemption (like in the case of BritNed).

The EirGrid Group considers that it should not be assumed that all new interconnectors will seek exemptions. The Congestion Management Guidelines and Third Energy Package with future framework guidelines and network codes in the area of congestion management and capacity allocation place binding requirements on regulated interconnectors. European legislative developments provide for exemptions to new interconnectors but under ever tighter conditions. Going forward, the development of European guidelines and codes, binding under comitology, and the possibility of having both regulated and exempt interconnectors connecting the same two markets may increase the risks associated with merchant interconnection.

3.3.2 Response to Question 3.2

Of the options set out, which are preferable and why? What are the key considerations in taking forward any of the options?

Generally, throughout much of Europe (and in Ireland with the future East-West Interconnector) the preference is for regulated interconnection. Some of the main benefits of regulated interconnection include: compliance with EU legislation; adoption of a similar regulatory framework employed in many other neighbouring Member States; clear rules on the use of revenues with a priority on maximising the capacity allocated and investment in new interconnection; and facilitation of intermittent generation. The downside with any regulated interconnector is the risk of stranded costs if the interconnector is not congested, with these costs socialised across end-users.

The use of Option 2 would serve to mitigate the costs of interconnection for end-users but it is questionable whether there would be any appetite for building new interconnection under this scenario where company profits are capped with no corresponding floor to mitigate the risks involved in building new interconnection. This option is likely to result in a lack of appropriate investment in new interconnection.

Option 3 with a cap and floor would go some way to alleviating investor concerns but the key issue then is where to set the cap and floor. This option requires careful consideration on where the level of cap and floor are set to ensure a balance between protecting customers' interests and providing investors with sufficient incentives to proceed with the investment.

Merchant interconnection has the benefit of operating under a fully commercial model where the risks and rewards of interconnection are covered by the investor. Again however, it is questionable if the flexibility provided to merchant interconnection through an exemption is sufficient to mitigate the legal, regulatory and financial risks and uncertainty associated with any new build.

3.3.3 Response to Question 3.3

Is it feasible to have a mixture of different approaches for different interconnectors – such as some exempt and others regulated? If not, why and how should this be resolved?

The preferred option generally in Europe (and indeed for the East-West Interconnector) is for a regulated approach to interconnection or Option 4 in Ofgem's consultation paper. However, this does not exclude the possibility of having both exempt and regulated interconnectors in GB and the Third Energy Package does provide exemptions for new interconnectors which meet the required criteria.

4 Conclusion

The EirGrid Group looks forward to working with our neighbouring TSOs and regulators to facilitate further regional integration. With the East-West Interconnector scheduled to be operational in 2012, the total interconnector capacity between GB and Ireland will be 1,000MW, which is the same in MW terms as the interconnection capacity on BritNed, linking GB and the Netherlands.

In addition to licences granted to interconnectors linking GB to mainland Europe (i.e. BritNed and IFA), Ofgem has also granted interconnector licences to both EirGrid and Moyle and needs to take all interconnector licensees into account when considering interconnector policy. The full benefit of further interconnection to customers in both GB and Ireland will only be delivered if Ireland is both fully considered and involved in the evolution and development of regional congestion management and capacity allocation policy between GB and Ireland, in the FUI and indeed in the larger North West European region.

It is our view that on the issue of firmness, capacity holders should be reimbursed the price initially paid for the capacity to comply with the Congestion Management Guidelines and protect the interests of end-users (or shareholders in the case of GB interconnectors). The East-West Interconnector will be fully compliant with EU legislation.

As the East-West Interconnector owner and operator, and Moyle Interconnector Operator, the EirGrid Group will continue to participate at a European level to ensure that we are prepared for any changes which may affect the development of integration and inform our path forward. We will continue to co-ordinate with our colleagues in France, the UK and the Netherlands to learn the lessons made from their experiences in developing the IFA and BritNed and proposed plans for any future interconnection.

EirGrid's Interconnector Economic Feasibility Report highlights the benefit and further potential of additional interconnection between Ireland and GB and we are now exploring fully the options for future interconnection.

The EirGrid Group looks forward to developing, in cooperation with the regulators, detailed intraday options to ensure the impacts on system operation and the market systems are considered.

The regulators and TSOs have a key role to play in developing co-ordinated trading arrangements between the BETTA and SEM electricity markets. All stakeholders will need to work together to ensure cooperation leads to increased efficiencies, renewable penetration and system security to the benefit of all consumers in both GB and Ireland.