



SEM Committee

SEM Regional Integration

Consultation Paper Responses and SEM Committee Decision

3 March 2010

SEM-10-011

1. Background

At their March 2009 meeting, the SEM Committee discussed a paper on interconnector issues and the SEM. The paper was subsequently published in April 2009 and the views of interested parties were sought on it.¹ The paper:

- noted that flows in both directions across the Moyle Interconnector had not responded as fully as might have been expected to differences in prices between the SEM and the electricity market in Great Britain (GB);
- identified a number of reasons why this might be the case, including:
 - the availability of capacity on the Moyle Interconnector (IC) and its cost;
 - the risks created by the misalignment of the SEM and the GB markets (e.g., gate closure and ex-post pricing in the SEM); and
 - other trading risks such as the lack of liquidity in day ahead markets in both Ireland and GB and transmission network use of system (TNUoS) charging in GB;
- recognised that:
 - market misalignments between the SEM and the GB markets were fundamental characteristics of the SEM and GB market designs which would not be amenable to change in the short to medium term;
 - the consequences of increased interconnection between Ireland and GB in the future would need further study;
- recommended:
 - the development of weekly or daily auctions of capacity on the Moyle IC;
 - allowing intra-day use of capacity on the Moyle IC by the system operators (SOs);
 - developing thinking on market coupling and intra-day trading on the Moyle and future ICs between SEM and GB.

At their discussion in March 2009, the SEM Committee commissioned a paper on market coupling and the SEM; and on indicative proposals for intra-day trading on interconnectors between the SEM and its regional market. This paper (the Consultation Paper) was published in September 2009.² It:

- discussed recent efforts by the European Commission, the European Regulators' Group for Electricity and Gas (EREG) and others to re-coordinate the development of regional markets;

¹ See SEM-09-042.

² See SEM-09-096.

- noted the particular characteristics of the Irish, GB and French markets, as well as interconnectors currently operating and shortly to come on line in the region, and examined the costs and benefits of increased interconnection between Ireland and GB;
- considered the implications for the SEM of increased interconnection with neighbouring markets and a drive across Europe for more integrated electricity cross border trading mechanisms;
- examined how best to coordinate the allocation of available transfer capacity on ICs between the SEM and GB across various time frames - from long to medium term through to day ahead, intra-day and in balancing markets.

The SEM Committee identified the efficient use of the available capacity of the interconnectors between the SEM and GB as a key SEM objective; and sought the views of interested parties on how this could best be achieved across the various time frames (longer term, at the day-ahead stage and intra-day).

The Consultation Paper concluded by recommending that the Regulatory Authorities (RAs) should:

1. engage with stakeholders and policymakers at the European level to influence the development of policy on integration of electricity markets at a regional and European level, with specific emphasis on the coordination of capacity allocation within regions at the annual, monthly and day-ahead stage;
2. develop a coordinated approach to congestion management with Ofgem in general and the explicit auctioning of capacity on ICs in particular;
3. bring forward options for amending the SEM's Trading and Settlement Code to facilitate use-it-or-lose-it (UIOLI) and intra-day IC trading to maximise the benefits for customers of interconnection and intermittent generation and to comply with the requirements of the European Union's Congestion Management Guidelines (CMG); and
4. develop options for the market coupling of the SEM with neighbouring markets, in the light of their likely costs and benefits and of the response of interested parties.

This paper considers the responses of interested parties to the Consultation Paper by topic; the SEM Committee's decision in each case in the light of those responses; and proposes a programme of work for the RAs to achieve the SEM Committee's overall aim of maximising the efficient use of existing and future interconnectors between the SEM and its neighbouring markets over the next few years, by ensuring as far as is possible given the current design of the SEM that interconnector users:

- have access to the maximum available transfer capacity on those interconnectors across a range of time frames; and

- can respond efficiently to wholesale price differentials between the SEM and its neighbouring markets.

Section 2 of the paper summarises the proposals in the Consultation paper and the responses of interested parties to them.

Subsequent sections address issues that were not explicitly mentioned in the Consultation paper and on which respondents commented.

Section 3 discusses briefly the interaction of capacity payments and trade across the Moyle interconnector.

Section 4 looks at the particular perceived barriers to interconnector trade which respondents raised, including transmission system charging in Great Britain and the 80MW restriction on exports across Moyle.

Section 5 considers what changes to the Trading and Settlement Code (TSC) will be required to be made once the SEM has two interconnectors, recognising that the TSC was written with only one interconnector (Moyle) in mind.

Section 6 concludes and sets out a number of decisions that the SEM Committee has taken in the light of the consultation and other developments.

Annex 1 illustrates a range of existing and potential means of cross border trading between the SEM and GB/regional markets.

2. Responses to the Consultation

The SEM Committee received sixteen written responses to the Consultation Paper, from the following organisations:

- Airtricity
- APX-ENDEX
- Bord Gáis Energy
- Bord na Móna
- Consumer Council of Northern Ireland
- EDF Energy
- EirGrid & SONI (& SEMO)
- Endesa Ireland
- ESB
- ESB International
- Irish Wind Association (IWEA)
- Micro Electricity Generation Association of Ireland (MEGA)
- Moyle Interconnector Ltd.
- NIE Energy (PPB)
- Sustainable Energy Ireland (SEI)
- Viridian Power & Energy Ltd.

The RAs also met individually with representatives of each of the organisations which had submitted responses better to understand their responses. The oral and written comments of the sixteen parties listed above are summarised and responded to below, by topic: long and medium term explicit auctions of IC capacity; implicit day ahead auctions (i.e., market coupling); intra-day trading; balancing markets; and other issues (capacity payments, barriers to trade across ICs etc.). The written submissions themselves are published separately with this paper. None of the respondents objected to its response being published.

2.1 Explicit Auctions

Consultation Paper Proposal

The SEM Committee noted in the Consultation Paper that Moyle currently offers its available transfer capacity to the market in both long term (1 to 3 years) and short term (monthly) auctions. The explicit capacity auction system for the East West IC, which is expected to be operational by the third quarter of 2012, is currently being specified by EirGrid for submission to the RAs. EirGrid intends to launch a tender for an auction platform towards the end of 2010; and that a software system will be procured during the first half of 2011. The Consultation Paper proposed that the RAs would develop with Ofgem a coordinated approach to congestion management and in particular the explicit auctioning of capacity on ICs. This is consistent with the CMG, which require:

‘ ... a common co-ordinated congestion management method and procedure for the allocation of capacity to the market at least yearly, monthly and day-ahead ... between countries in the ... region.’³

Respondents Views

Respondents were generally in favour of coordinated explicit auctions across ICs in the FUI region. There was also support for a common auction platform for all ICs operating in the SEM and that this should be as compatible as possible with other interconnectors operating in the France-UK-Ireland (FUI) region. In particular, EirGrid & SONI - in their joint response - noted that a common auction platform across all SEM ICs that was capable of interfacing with both the Interconnexion France-Angleterre (IFA) and BritNed interconnectors would be of benefit.

Several respondents expressed the view that a range of explicit forward auctions would be a significant improvement on the current situation in terms of incentives to trade between the SEM and GB, with weekly, daily and electricity forward agreement (EFA) block calendar auctions all mentioned as potential products for Moyle and the East West ICs, as illustrated in the figure below. Auctions of daily capacity that matches the EFA calendar day, which runs for 24 hours from 23.00, were recommended because that would enable traders to match EFA block purchases and sales of energy in the SEM and GB.



Figure 1 –Potential Capacity Products for Moyle and East West ICs

SEM Committee Response and Decision

Given the importance placed on explicit forward markets for the allocation of cross border capacity both at the European level and amongst SEM participants, the SEM Committee is of

³ See paragraph 3.2 of Commission Decision of November 2006 amending the Annex to the Regulation (EC) No. 1228/2003 on conditions for access to the network for cross border exchanges in electricity (2006/770/EC)

the view that a fundamental building block for the creation of a competitive European electricity market is a robust and compatible auction platform for both the Moyle and East West ICs that can handle capacity allocation across all forward timeframes, from the long term through to daily auctions.

However, it would be inappropriate for the SEM Committee either to determine the precise products that are to be sold in explicit auctions; or to specify the particular auction platform to be used. But the SEM Committee recognises that both Moyle Interconnector Ltd and EirGrid (as the operator of the East West IC) will need regulatory approval from NIAUR and the CER respectively for the auction platforms they intend to procure. The SEM Committee, having considered the various responses to the Consultation Paper, has decided that the RAs will use the following criteria insofar as possible in approving a common SEM IC auction platform:

- there should be a compatible auction platform for the East West and Moyle ICs, always recognising that EU procurement rules and procedures have to be followed;
- explicit forward auctions should be coordinated with IFA and BritNed capacity auctions;
- explicit forward auctions should be compatible with the timing of shorter term capacity allocation processes, i.e., day ahead implicit auctions, if developed, and intra-day trading, and;
- capacity purchased in explicit auctions should be freely tradable on a secondary basis via the auction platform and that suitable system arrangements should be in place for ensuring that secondary trades are communicated to the system operators/SEMO sufficiently far in advance of gate closure.

In addition the RAs shall cooperate with their neighbouring regulators on the above.

2.2 Day Ahead Capacity Allocation - Market Coupling

Consultation Proposals

The Consultation Paper presented two options on how best to couple the SEM with the GB market and the Central West Region market at the day-ahead stage.

The most radical proposal was to re-design the SEM to make it compatible with other markets in the FUI region and enable it to be market coupled at the day-ahead stage with those markets, using similar processes as have been successfully implemented since November 2007 to allocate daily capacities on the France-Belgium and Belgium-Netherlands interconnectors.⁴ A less ambitious option would be to work with the existing design of the SEM and to couple with GB and the Central West Region as best as could be achieved. The SEM Committee sought the views of interested parties on these mutually exclusive options and of the likely balance of costs and benefits of each.

⁴ Market coupling is a mechanism used to integrate electricity markets in different physical areas while requiring minimal changes to the local market arrangements. It replaces a two-step process: a daily explicit auction of transmission capacity followed by the day-ahead energy markets by integrating capacity allocation and energy trading.

Respondents Views

For the most part, respondents to the Consultation Paper considered price coupling (as now successfully implemented in the France-Belgium-Netherlands region) was too ambitious a step for the SEM at this stage of its development. But there was widespread support for the establishment of a liquid day ahead market in the SEM to facilitate interconnector trade with neighbouring day ahead markets; and for a form of loose volume coupling at the day ahead stage.

However, a number of respondents pointed out that establishing a liquid day-ahead market in contracts for differences (CfDs) in Ireland would face considerable obstacles, given the size of the market in Ireland, the number of participants in it, the nature of the SEM itself and the structure of the sector. Some, in subsequent discussions with the RAs, considered that establishing a day-ahead price using the existing SEM structure might be a possible alternative to an organised market in CfDs. For example, it was suggested that the price and volume outputs of the *ex-ante* run of the MSP software could be used to set a firm day-ahead price and volume for interconnector units trading with GB.

SEM Committee Response and Decision

The SEM Committee is keen to explore the development of a form of loose volume coupling for trade across the ICs with GB, to ensure that the ICs are used effectively and efficiently. While day ahead implicit auctions are not yet required under European law, the moves to codify implicit auctions as a binding target for European electricity markets under the Third Legislative Package means that it will be key to the future of regional integration.⁵

The SEM Committee acknowledges that the design of the SEM is not readily conducive to the establishment of a day ahead power exchange, which is the means by which a day ahead price and price coupling is conceived of in much of the rest of Europe. The SEM is a centrally dispatched gross mandatory pool, though which all physical sales and purchases of energy are required to take place. The market model in the rest of Europe tends to be a self dispatched physical bilateral contracts market, where only physical imbalances are traded in a mandatory market. This incentivises participants to trade on a physical basis ahead of real time, to avoid penal imbalance prices and encourages the development of liquid day ahead markets in physical energy. While participants in the SEM have a similar incentive to hedge variable pool prices, this has to be done with financial contracts, i.e., CfDs.

The SEM Committee has considered several options for establishing a day-ahead market through which implicit coupling with a power exchange in GB could take place and is of the view that further consideration and development of these options is required. One possibility is to set up a liquid day ahead CfD market to establish a robust day-ahead price in the SEM. This has the advantage of being possible without changing the SEM design or its central market systems. Another option, which the RAs discussed with several respondents, is the use of the existing *ex*

⁵ EU regulation (No 714/2009) of 13 July 2009 states that: 'Transmission system operators shall promote ... the coordinated allocation of cross-border capacity through non-discriminatory market-based solutions, paying due attention to the specific merits of implicit auctions for short-term allocations ...'

ante MSP software to set a firm day-ahead price and volumes for interconnector trades. Whilst this has the drawback of entailing likely changes to the SEM rules, this may be offset by the benefits of being able to use an already liquid market (i.e. the pool). These two options are described in the text boxes below. Other options within the SEM design itself may present themselves as work and further investigation into this area progresses.

The SEM Committee has decided that the RAs will investigate the feasibility of and bring forward proposals during the course of 2010 for the development of:

- A viable means of establishing a day-ahead price in the SEM which would allow SEM participants to trade energy with power exchanges in neighbouring markets at day ahead stage either by volume or price; and propose if appropriate,
- TSC modifications which facilitate the above but which do not fundamentally alter the SEM rules.

Recommendations for changes to market design should bear in mind the potential demand from market participants or new entrants for the above and address liquidity concerns as needed.

CfD Loose Volume Coupling

Features

A day ahead CfD market would be set up and coupled to the GB day-ahead power exchange (PX). Physical transactions would be undertaken within the SEM by a shipping agent who would be responsible for cross border transactions based on the price differential between the two markets established in the day ahead CfD market.

The arrangement might operate as follows:

- Day-ahead CfD auction at 11.00 GMT (12.00 CET) with SEM gate closure moved to 12.00 D-1
- A shipping agent would have a physical position on APX in GB and would balance this by flowing energy over the ICs and trading in the SEM as an interconnector user (IU).
- The CfD would be purely a financial transaction cashed out at the difference between the CfD auction price and the ex post SEM price (i.e. SMP).
- The cross border flows determined in the coupled day ahead markets would then flow into/out of the SEM as the Modified Interconnector Unit Nominations (MIUNs)/Dispatch Quantities (DQs) of the Interconnector User (IU) with the shipping agent acting as the IU for these firm day ahead volumes.
- As now, the ex-post MSP Software run would determine the price in the SEM and the difference with the day-ahead CfD auction price would be paid to/received by the shipping agent.

Issues to be considered

- A successful day-ahead CfD auction would require a liquid market. The SEM Committee intends to consider how liquidity could be introduced into such a market, including an obligation to make available for auction of some IC capacity day-ahead.
- A power exchange operating in other markets and/or the system operator/SEMO in Ireland could run the day-ahead CfD auction.
- The capacity resulting from the day-ahead volume coupling could be scheduled in the SEM by setting the DQs/MIUNs of the shipping agent as an IC User to the calculated flow amount.
- The use of the ex post SMP as a strike price for the day ahead CfD means that other charges such as capacity payments, constraints payments etc. are ignored, such that the shipping agent (as the IU) may end up with a net payment not equal to the CfD market price, resulting in an unbalanced cash position. This could be resolved by including additional predictable charges in the coupling algorithm such that flows are not scheduled unless additional costs are covered.

Ex ante MSP Loose Volume Coupling

Features

An alternative to a day-ahead CfD market would be to make use of the liquidity that already exists in the SEM gross pool and to establish the *ex ante* SMP as a firm day-ahead price in SEM. This price would apply *only* to interconnector trades. Volumes traded across the interconnectors would be determined at the day-ahead stage based on the difference between the *ex ante* SMP price and a day ahead price in GB on APX. These volumes would then be contracted through a shipping agent who would sell volumes into/buys from the SEM pool.

The volumes would be firm day-ahead and would be settled at the *ex ante* price for generators or suppliers who choose to sell/buy power day-ahead. They would not be entered into the *ex post* run of the MSP Software, but would be treated as price takers – i.e. their MSQs would be fixed at the volumes determined by the coupling mechanism. IC units would pay and get paid the *ex ante* SMP. If any interconnector capacity was left over in the *ex ante* schedule it would go into intra-day schedule.

As in the CfD loose volume coupling option, this option does not take into account other payments and charges in the SEM. A method for ensuring that the shipping agent was not exposed to unpredictable charges would have to be found.

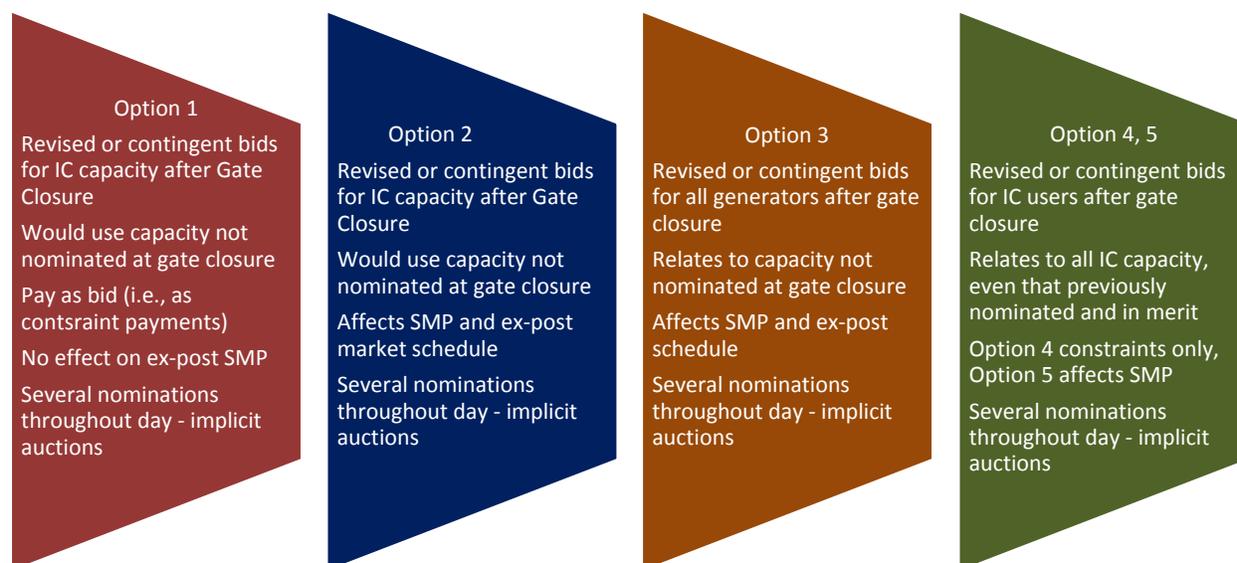
Issues

This option is more complex than the CfD option. It effectively introduces a separation in the pool arrangements between an *ex ante* interconnector only market and an *ex post* market for other trades. The issue of obligating parties to buy/sell a portion of their demand/output day-ahead at the *ex ante* price would need further consideration by the SEM Committee. Nonetheless, there may be merit in this option or variants of it and the RAs shall develop these further.

2.3 Intra Day Trading

Consultation Proposals

Once the East West IC is in operation in 2012, it will be subject to the relevant EU Directive and the CMG. To comply with EU law, a means of intra-day trading across the interconnections between SEM and GB has to be developed by then. The figure below summarises the five options for intra-day trading set out in the Consultation Paper.



Five intra-day options for intra-day trading were proposed in the paper with the objective of increasing the efficiency with which the SEM ICs are used and of providing flexibility to the system as intermittent generation increases and conditions after gate closure begin to undergo more substantive fluctuations.

The key element to all options is that IC units (and all price makers in Option 3) may make revised bids and offers in relation to interconnector capacity that they do not currently hold (i.e., that they have not purchased in an explicit auction). These bids are contingent on unused capacity being available in the relevant direction. All five options have the following common features:

- All existing capacity holders must continue to signal their intention to use their capacity by submitting a set of bids by SEM gate closure. These bids are then used to identify unused interconnector capacity.
- Available interconnector capacity is re-allocated on day D-1 and D after the issue of indicative or actual production schedule at 12 noon on D-1.
- Any existing holders of interconnection capacity, if not in merit in the indicative schedule at 12 noon, lose all rights to that capacity, i.e., UIOLI applies.

- IC units would be allowed to submit revised bids, including bids in relation to interconnection capacity that they do not hold rights for. These bids are then used to redistribute unused interconnector capacity.

The Consultation Paper proposed that the RAs develop the above and further options in conjunction with the SOs and SEMO as well as Ofgem and National Grid in the UK in the context of regional coordination of intra-day trading.

Respondents Views

Most respondents thought that Option 1 was the most sensible option to pursue in the short to medium term, given its likely low level market design impacts. Other respondents stressed the importance of the principle of non-discrimination in the SEM and on this basis favoured Option 3, which allows all SEM participants (not only IC units) to rebid after gate closure at 10.00 on D-1. Some respondents, notably the system operators/SEMO, favoured Option 2 on the grounds that the treatment of interconnector units in the *ex post* schedule would be capped by their availability in dispatch.

Other key issues raised by respondents included:

- Some respondents called for further modelling before they could support any of the five options.
- Several respondents raised the issue of being able to buy gas day ahead in a timely manner as currently takes place upon publishing of the indicative operations schedule by the system operators. Intra-day trading would mean generators would have to extend their purchasing operations much closer to real time and this could potentially be a significant problem for some generators.
- One respondent pointed to the need for frequent (up to six) gate closures intra-day and that due to the inaccuracies of wind forecasts, a series of four hourly within day gate closures would give a more accurate impression of the SMP and make interconnector trading less risky.
- Several respondents pointed to the inability to forecast accurately capacity payments in the SEM and questioned how this would change with intra-day trading.
- Some respondents raised the question of the need for a 20-44 hour gate closure in the SEM and stressed the importance of moving gate closure closer to real time.
- One participant questioned the value of Option 1 for traders, who would receive only their bid price in the SEM – i.e. the resale price in GB – and so would not make a profit on trade.
- Some respondents indicated a strong preference for use-it-or-sell-it (UIOSI) as opposed to UIOLI. Other respondents preferred UIOLI such that the interconnector owner would receive revenue for unused capacity.

SEM Committee Response and Decision

The RAs have engaged with respondents on a wide range of issues that affect the development of intra-day trading in the SEM. Given the importance of this issue both in terms of the role of the interconnectors in supporting a system which will become increasingly dependent on intermittent generation and the need to make as much use of the interconnectors as is economically warranted, the SEM Committee places a high priority on the development of intra-day trading in the SEM.

The SEM Committee has therefore decided that the RAs will:

- Develop a Trading and Settlement Code modification to facilitate intra-day trading for submission to the Trading and Settlement Code Modifications Committee as soon as possible, by end quarter 1 2010.
- Recommend to the Modifications Committee that they consider establishing a Working Group, reporting to the Committee, which would consider the proposed modification and any alternatives to it, having due regard to:
 - The advantages of aligning intra-day trading arrangements in the SEM with those on the IFA and BritNed.
 - The desire for intra-day trading to affect *ex post* SMP, to maximise the incentives for participants to submit intra-day bids.
 - The benefits and drawbacks of multiple gate closures and the key timings and interactions to consider (e.g. initial operations schedule, wind forecasts etc.).
 - The degree to which the SEM design can accommodate multiple gate closures
 - The compatibility of the Project Co-ordination Group (PCG) target model for continuous intra-day trading with the SEM design.⁶
 - Interactions with explicit forward capacity auction proposals and market coupling proposals.
 - Interactions with dispatch in general and wind dispatch in particular.
 - The merits of UIOLI as against UIOSI.
- Bring a proposed Trading and Settlement Code modification, which the Modifications Committee has recommended, to the SEM Committee by the end of the third quarter of 2010.

⁶ The Project Co-ordination Group is a group of experts whose task is to present target models across the various time frames (long term, day ahead, intra-day etc.) and a detailed implementation roadmap for inter-regional congestion management methods to the Florence Forum.

2.4 SO to SO Trades

Several respondents to the Consultation Paper suggested that the system operator (SO) trading options set out in the SEM Committee Paper of April 2009 should be pursued as opposed to those proposed in the Consultation Paper.

The SEM Committee Paper on interconnector issues published in April 2009 presented several options put forward by the SOs to allow the SOs to use interconnectors as an efficient tool for managing constraints and exploiting price arbitrage opportunities after gate closure.⁷ In that Paper, the SEM Committee recommended that the RAs assessed the SOs' options and implemented the chosen option.

Since then, several developments have taken place:

- Initially Option 3, whereby the SOs would trade in GB but only to the extent required to facilitate trading with the trading arm of National Grid in the UK was pursued, but for legal reasons National Grid (NG) were not keen on proceeding with this option.
- NG has now agreed to SONI's initial request for firm trades at the day ahead stage. This requires no SEM systems changes. It requires only commercial agreements to be finalised.
- SONI will retain the ability to trade with NG intra-day should SONI need it.
- SONI are also exploring the possibility of trading directly on GB power exchanges, to get better access to intra-day GB prices. The RAs are considering the implications of this for SONI's licence.

The SEM Committee does not see SO trading and intra-day trading as mutually exclusive. The SO options identified in the April 2009 Interconnector Paper limit intra-day trading by the SO for managing system security. Thus, intra-day trading *per se* is an objective in itself, being a market based mechanism for capacity allocation to traders after gate closure. Flexible balancing options for the SOs should not compromise the ability of participants to trade across interconnectors within the day.

At European level, the moves to integrate balancing markets entail real time cross border balancing by system operators with the intention of creating a common cross-border balancing market across Europe with a multilateral TSO-TSO mechanism in place by 2015.⁸ Within the FUI region, as noted in the Consultation Paper, an interim solution for SO-SO balancing was put in place on the IFA in March 2009, allowing SOs to exchange six prices a day, compared with only one previously. A more enduring solution with greater automation is currently being developed.

The SEM Committee is committed to ensuring that the SOs in the SEM are able to access competitive prices in the GB market for security of supply and for balancing reasons; and that these arrangements should be coordinated insofar as is possible with balancing arrangements within the region and any intra-day trading provisions.

⁷ See SEM-09-042.

⁸ See PCG Target Model presented at the Florence Forum in December 2009.

3. Capacity Payments and Interconnectors

The capacity payments mechanism in the SEM is subject to a separate RA work stream and therefore this decision paper will not address the substantive issues pertaining to capacity payments.⁹ However, both in written responses to the Consultation Paper and in meetings with respondents the RAs have been made aware of the range of interactions between interconnector trade and the functioning of the CPM in the SEM.

Some of the key issues that emerged in the responses included:

- Should capacity payments for interconnectors be based on the interconnector flow or interconnector availability, as is the case for dispatchable generation units in the SEM? If the latter, should the interconnector owner receive part of the benefit of the interconnector's availability?
- The capacity payments charge for exporting ICs does not adequately take into account the security of supply value of the interconnector and should be abolished.
- The implications of capacity charges for exporting interconnector units at times of high wind generation need to be considered and how the benefits of 'exporting wind' are distributed to customers.
- The question of the profile of capacity payments across the year and its effect on seasonal flows across the ICs.
- The relative merits of *ex ante* and *ex post* capacity payments.

The SEM Committee will ensure that these issues and all other CPM matters relevant to interconnectors are fully addressed in the capacity payments mechanism medium term review as part of the SEM Committee's efforts to reduce barriers to trade across interconnectors in the SEM and to incentivise the economic use of interconnector capacity. If appropriate some of these issues can be raised also at the Trading and Settlement Working Group considering intra-day trading and the day-ahead coupling workstream.

4. Barriers to Trade

In its April paper, the SEM Committee identified a number of barriers to trade that may have contributed to the under-utilisation of the Moyle Interconnector since the SEM began. The SEM Committee is aware of the importance of these issues and intends - where it is within its powers

⁹ The SEM Committee published a Consultation Paper (SEM-09-035) in April 2009, setting out the scope of work that the SEM Committee proposed to carry out in relation to a medium term review of the capacity payment mechanism (CPM). The main purpose of the review is to examine if the current design of the CPM can be further improved to meet its original objectives. The SEM Committee published responses to the consultation paper in November 2009 and a clarifying note (SEM-09-1-5) on the scope of the medium term review. The review has now started and an initial Consultation Paper is expected to be published at the end of September 2010.

- to minimise or remove as many barriers to interconnector trading between the SEM and its neighbours as possible.

While the Consultation Paper was not intended specifically to elicit responses on barriers to trade, it was clear from the responses that there are many impediments to IC usage that will not be addressed by the capacity allocation methods addressed in the Consultation Paper.

This section sets out some of the specific trading barriers raised by respondents to the Consultation Paper and the SEM Committee's response to these.

4.1 Exogenous Barriers to Interconnector Trading

As mentioned in the SEM Committee's April paper, the risk of importing from GB across the Moyle during the three triad periods between November and February is clearly a significant issue for interconnector in the SEM.¹⁰ One respondent explained that they would not import into the SEM across the Moyle at all when a triad period was forecast.

A further GB charge that causes difficulty for SEM-GB trade according to respondents is the Transmission Entry Capacity (TEC) which applies to generators (including interconnectors exporting to GB). Several respondents urged the SEM Committee to encourage the exemption of interconnectors from triad and TEC charges.

The SEM Committee notes the concern of respondents about the perceived negative effect of the TNUoS charging methodology employed by National Grid in GB. While this relates to a jurisdiction outside Ireland and Northern Ireland, the SEM Committee has already and will continue to raise these matters with regional regulators and others during regular meetings.

4.2 SEM Barriers Addressed in Interconnector Issues Paper

In its April paper, the SEM Committee set out its intention to address two specific barriers to trading related to the Moyle IC. Respondents to the Consultation Paper were interested in progress on these issues:

Development of Short Term Capacity Auctions and IT System for Moyle

The SEM Committee understands that the specification for the auction platform for Moyle went out to tender late last year. Contract award is likely in Q1 2010, with implementation expected during the summer of 2010. The current intention is that the software system will be 'future proofed' with a basic configuration initially used for Moyle, together with the ability to add more sophisticated features – such as weekly and daily auctions - if and when a common auction platform with the East-West IC is launched.

¹⁰ The triad is used as a short hand way to describe the three half hours of highest transmission system demand in GB in a year, namely the half hour period of system peak demand and the two half hour periods of next highest demand, which are separated from the system peak demand and from each other by at least ten clear days, between November and February inclusive. In April of each year, each licensed electricity supplier in GB is charged a fee for the peak load it imposed on the transmission system during those three half hours in the previous winter. An exporter of energy across the Moyle from GB to Ireland is treated as a supplier for triad calculation purposes.

Removing 80MW Moyle export restriction

Moyle contracts with NG for use of system rights to enable the transport of electricity to or from its Auchencrosh Converter Station in the south of Scotland. TNUoS generation charges (i.e., those payable on the export of energy to Scotland) are payable by Moyle, based on the contracted Transmission Entry Capacity (TEC) at Auchencrosh in Scotland. Currently Moyle has contracted with NG for only 80 MW of TEC, at an annual cost of £1.2 million.¹¹

There is a technical (system security) element to this issue that must be resolved before the commercial aspects can be explored. SONI have employed consultants to undertake the technical studies and is expected to have the results of that study presently. If the technical study shows that the NI system can sustain higher export flows than is currently the case, discussions will begin with Moyle on the TNUoS issues.

On the Scottish side the weak link is a single 275KV circuit feeding Moyle. National Grid and Scottish Power are not particularly incentivised to ensure the availability of this line and this could become a barrier to trade. There are a number of long term outages (weeks) planned on the line in the coming years. Moyle believes that consideration should be given to making its transmission rights through the Scottish Power system financially secure. The RAs understand that ultimately this would be a matter for Ofgem.

Since the SEM Committee's Consultation Paper was published an issue has arisen around the ability of Moyle to increase its TEC beyond 80 MW given the increase in wind generation capacity which has applied for connection to the system in Scotland in the Auchencrosh area. Moyle have applied for 360 MW of firm and non firm capacity. NG will assess Moyle's bid and will give a response in three months. By this time, Moyle will have to decide if this expansion in exporting capacity is justifiable in commercial terms.

¹¹ Moyle recovers the TEC charge from those participants who have contracted for units of export capacity on the Moyle IC on a monthly basis. The charge is equal to 1/12 of the annual charge per MW of TEC based upon the capacity contracted in that month.

5. TSC Changes and the East West Interconnector

In addition to the policy considerations discussed above, there are some 'housekeeping' changes to the SEM and in particular the Trading and Settlement and Grid Codes that are required to accommodate the commissioning and registration of the East-West Interconnector in 2012.

The key issues that require addressing include:

- With the registration of a second interconnector in the SEM, how should the market and the system operator allocate trade across two interconnectors?
- SEMO has assigned its TSC obligation regarding the calculation of MIUNs to SONI. When a second interconnector is registered in the market thought needs to be given to who carries out this function for each interconnector and a wider view under the arrangements for joint administration to GB of the Interconnectors.
- Under current arrangements in Section 7 of the TSC, the point from which technical losses on the Moyle are measured is at the Auchencrosh (Scottish) end of the Moyle interconnector so as to align with the Moyle Interconnector Trading System. The enduring TSC arrangements calculate losses at the Ballycronan More (NI) end of the Moyle interconnector. By contrast, both the IFA and BritNed ICs set the point at which losses are measured at the mid-point between Sellindge (GB) and Bonningues-lès-Calais (France) in the case of the IFA and between Maasvlakte (the Netherlands) and the Isle of Grain (GB) in the case of BritNed. Thought will need to be given to how losses are treated on an enduring basis for both the East-West Interconnector and Moyle.
- There is considerable debate at the European level on the concept of curtailment for interconnectors and the meaning of Force Majeure. Consideration will need to be given to the TSC provisions on IC curtailment for interconnectors and how this relates to EU guidelines and legal requirements. This is particularly relevant when considering market coupling where firm capacity day ahead is essential.¹²
- The functions of the Interconnector Error Unit under the TSC for Moyle are currently undertaken by the Interconnector Administrator, as per the TSC. Consideration will need to be given to who should fulfil this function for the East West Interconnector.

The SEM Committee has decided that these and any other 'housekeeping' changes to the TSC shall be developed by the RAs or the SOs/SEMO as appropriate. The SEM Committee may receive these proposals for approval by the end of the third quarter this year or indeed they could be approved by delegated authority if not policy issues.

¹² See the proposed BritNed trading arrangements where implicitly auctioned capacity is firm whereas explicit capacity is not. (<https://www.britned.com/trading/pages/default.aspx>)

6. Interconnector Financing and New Interconnectors

Further consideration needs to be given by the SEM Committee to how the costs of SEM Interconnectors are recovered and the extent to which this happens on an all-Island basis. The interactions with harmonised TUOS charging and more broadly with Ofgem's proposals on regional interconnector investment models require further thought.

7. Conclusions and Next Steps

The SEM Committee is encouraged by the number and quality of responses to the Consultation Paper. They show an enthusiasm on the part of market participants for making more efficient use of interconnector capacity in the SEM and for ensuring that Ireland participates fully in moves towards regional integration of electricity markets in Europe.

Having considered both the written and oral the responses to the Consultation Paper, the SEM Committee has taken the following decisions.

1. Forward Explicit Auctions

The RAs will apply the following criteria in approving requests from Moyle and EirGrid for approval for the procurement of software to run explicit auctions of capacity on the Moyle and East West interconnectors respectively:

- there should be a compatible auction platform for the East West and Moyle ICs, always recognising that EU procurement rules and procedures have to be followed;
- explicit forward auctions should be coordinated with IFA and BritNed capacity auctions;
- explicit forward auctions should be compatible with the timing of shorter term capacity allocation processes, i.e., day ahead implicit auctions, if developed, and intra-day trading, and;
- capacity purchased in explicit auctions should be freely tradable on a secondary basis via the auction platform and that suitable system arrangements should be in place for ensuring that secondary trades are communicated to the system operators/SEMO sufficiently far in advance of gate closure.

In addition the RAs shall cooperate with their neighbouring regulators on the above.

2. Day Ahead Coupling

The RAs will investigate the feasibility of and bring forward proposals during the course of 2010 for the development of:

- A viable means of establishing a day-ahead price in the SEM which would allow SEM participants to trade energy with power exchanges in neighbouring markets at day ahead stage either by volume or price; and propose if appropriate,
- TSC modifications which facilitate the above but which do not fundamentally alter the SEM rules.

Recommendations for changes to market design should bear in mind the potential demand from market participants or new entrants for the above and address liquidity concerns as needed.

3. Intra Day Trading

The RAs have engaged with respondents on a wide range of issues that affect the development of intra-day trading in the SEM. Given the importance of this issue both in terms of the role of the interconnectors in supporting a system which will become increasingly dependent on intermittent generation and the need to make as much use of the interconnectors as is economically warranted, the SEM Committee places a high priority on the development of intra-day trading in the SEM.

The SEM Committee has therefore decided that the RAs will:

- Develop a Trading and Settlement Code modification to facilitate intra-day trading for submission to the Trading and Settlement Code Modifications Committee as soon as possible, by end quarter 1 2010.
- Set up a Working Group, reporting to the Modifications Committee, which would consider the proposed modification and any alternatives to it, having due regard to:
 - The advantages of aligning intra-day trading arrangements in the SEM with those on the IFA and BritNed.
 - The desire for intra-day trading to affect *ex post* SMP, to maximise the incentives for participants to submit intra-day bids.
 - The benefits and drawbacks of multiple gate closures and the key timings and interactions to consider (e.g. initial operations schedule, wind forecasts etc.).
 - The degree to which the SEM design can accommodate multiple gate closures.

- The compatibility of the Project Co-ordination Group (PCG) target model for continuous intra-day trading with the SEM design.¹³
 - Interactions with explicit forward capacity auction proposals and market coupling proposals.
 - Interactions with dispatch in general and wind dispatch in particular.
 - The merits of UIOLI as against UIOSI.
- Bring a proposed Trading and Settlement Code modification, which the Modifications Committee has agreed on, to the SEM Committee no later than the end of September 2010.

4. SO to SO Trades

The SEM Committee is committed to ensuring that the SOs in the SEM are able to access competitive prices in the GB market for security of supply and for balancing reasons; and that these arrangements should be coordinated insofar as is possible with balancing arrangements within the region and any intra-day trading provisions. It acknowledges the progress that SONI has made in its negotiations with National Grid for firm prices at the day ahead stage and it supports SONI's exploration of the possibility of trading directly on the GB power exchange (APX) for security of supply reasons. The latter option may be more economical than current arrangements for the purposes of security of supply. In parallel the RAs will explore compatibility of this option with SONI's license restrictions and, pending the provision of similar facilities to interconnector users, whether SONI's access to these might be considered discriminatory.

5. Capacity Payments

The SEM Committee notes the comments made by respondents about the effect of the capacity payments mechanism on incentives to trade across the interconnectors. These views will also be addressed in the intra-day and day-ahead coupling workstreams, where appropriate, and options and recommendations forwarded to the capacity payments mechanism medium term review as part of the SEM Committee's efforts to reduce barriers to trade across interconnectors in the SEM and to incentivise the economic use of interconnector capacity. If appropriate some of these issues can be raised also at the Trading and Settlement Working Group considering intra-day trading.

6. Barriers to Trade

The SEM Committee notes the concern of respondents about barriers to trade generally between SEM and BETTA including the perceived negative impact of the TNUoS charging methodology employed by National Grid in GB. While many of these barriers relate to a

¹³ The Project Co-ordination Group is a group of experts whose task is to present target models across the various time frames (long term, day ahead, intra-day etc.) and a detailed implementation roadmap for inter-regional congestion management methods to the Florence Forum.

jurisdiction outside Ireland and Northern Ireland, the SEM Committee will continue to engage with regional regulators and others to discuss these matters.

7. TSC Changes and the East West Interconnector

The SEM Committee has decided that all issues relating to the registration of the East West (and subsequent) interconnector(s) shall be advanced by the RAs and the SOs/SEMO in a TSC Modifications Committee Working Group set up for that explicit purpose. This Working Group will liaise closely with EirGrid and will report periodically to the Modifications Committee and the SEM Committee. Final proposals will be brought to the SEM Committee by end September 2010.

8. Developments at the European level

The SEM Committee is fully aware of the move towards a standard EU model for cross border capacity allocation across all time frames and it will take an active role in analysing and shaping ERGEG proposals and recommendations in this area. It has decided that the RAs will bring to it regular (i.e., quarterly) progress reports on relevant cross border developments in Europe. In preparing these reports, the RAs will participate in, monitor and liaise with the relevant ERGEG working groups, as well as strengthen links with Ofgem in GB and the Commission de régulation de l'énergie (CRE) in France.

With regard to the above, the SEM Committee notes two significant recent publications by Ofgem. Firstly, the GB regulator has published a consultation paper on Interconnector Policy which reviews the framework for regulated interconnection investment and capacity allocation in Great Britain. The second paper is a consultation paper on 'Project Discovery' potential energy market changes in response to an array of challenges facing GB in the coming years.

Annex 1: An Overview of Existing and Potential SEM - GB and Regional Trading Options

