



SEM Committee

Directed Contracts

Decision paper on the Treatment of Interconnection for Market Concentration

18 December 2012

SEM-12-118

Table of Contents

Contents

1.	Background to Project	. 3
1.1.	Introduction	. 3
2.	Summary of Comments	. 6
2.1	Respondent Names	. 6
2.2	Summary of Comments Received	. 6
3.	SEM Committee Decision	. 8

1. Background to Project

1.1. Introduction

Since 1st November 2007, the Northern Ireland Authority for Utility Regulation (or Utility Regulator) and the Commission for Energy Regulation (CER), together referred to as the Regulatory Authorities or RAs, have jointly regulated the all-island wholesale electricity market known as the Single Electricity Market (SEM) covering both Northern Ireland and the Republic of Ireland. The decision-making body which governs the SEM is the SEM Committee¹, consisting of the CER, the Utility Regulator as well as an independent member (who also has a deputy).

The SEM includes a centralised gross pool (or spot) market which, given its mandatory nature for generators (above 10 MW) and suppliers, is fully liquid. In this pool electricity is bought and sold through a market clearing mechanism, whereby generators bid in the Short Run Marginal Cost (SRMC) and receive the System Marginal Price (SMP) for each trading period. The SEM rules are set out in detail in the Trading and Settlement Code².

There are basic features of the SEM that serve to mitigate market power from any one market participant. In addition, the RAs developed particular market power mitigation measures for SEM, as part of a "market power mitigation strategy". Related to this, to date there have been offerings of 2-way Contracts for Differences (CfDs), to enable generators and suppliers to manage and hedge the wholesale price - i.e. SMP - risk inherent in the SEM. Liquidity in these contracts enhances the financial certainty, flexibility and innovation of participants in both the wholesale and retail markets.

On 26 June 2012 the SEM Committee (SEMC) published its decision paper on" Directed Contracts - Q4 2012 to Q3 2013 - Quantification and Pricing for Initial "Front Loaded" Auction" (SEM/12/048). This decision paper gave a commitment for the SEMC to publish a consultation paper on the treatment of interconnectors in future modelling for the purpose of Directed Contracts.

In designing and developing the SEM in the lead-up to its go-live in November 2007, the RAs were aware of the fact that a key issue which needed to be addressed was the risk of the exercise of market power or abuse of dominance in the SEM. This was as a result of the existence of two large incumbent electricity groups on the island - ESB and Viridian — and their potential ability to exercise market power. In order to address this, the RAs decided that it was necessary to put in place a specific Market Power and Dominance Strategy as part of the regulation of the SEM. The market power mitigation measures are referred to in consultation AIP/SEM/02/06 and decision AIP/SEM/31/06, further details on Directed Contracts is available in AIP/SEM/115/06, AIP/SEM/165/06, and AIP/SEM/244/06. The measures are summarised below:

- Bidding principles for generators, i.e. a Bidding Code of Practice which states that generators must bid in the SRMC to the wholesale pool;
- An RA Market Monitoring Unit to monitor adherence by generators to the bidding principles and to conduct market abuse investigations as needed;

¹ The SEM Committee is established in Ireland and Northern Ireland by virtue of Section 8A of the Electricity Regulation Act 1999 as inserted by Section 4 of the Electricity Regulation (Amendment) Act 2007, and Article 6 (1) of the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007 respectively.

Please see http://www.allislandproject.org/en/trading and settlement code.aspx

- Directed Contracts (or DCs) to be offered to the market by incumbent generators with the potential to exercise market power.
- Ring-fencing arrangements between affiliated generating and supply businesses within the ESB and Viridian groups, provided for in their licences.
- Local power mitigation measures, if deemed necessary.

Further information on Market Power, and the Market Power Mitigation Strategy employed by the Regulator Authorities is available in "SEM Market Power & Liquidity State of the Nation Review, An Information Paper" SEM/10/057, 23rd August 2010.

1.2. Purpose of this Paper

This paper sets out the SEMC decision on its recent Consultation paper on the Treatment of Interconnection for Market Concentration (SEM-12-086). This consultation related to market power in relation to DCs only, with a particular focus on how interconnectors impact on the ability to exercise market power in SEM and therefore in the determination of DC quantities.

The Consultation paper set out five options for how interconnectors could be treated in the future for measures of market concentration/power and DC volumes:

Option 1 – Status Quo

No changes to how Interconnectors will be treated in the Concentration Model. This will mean the interconnectors will be assumed to be competitive 100% of the time. Their full capacity will continue to be atomized

Option 2a – Reflect the modelled import flows in the Concentration Model

Current modeling estimates that interconnectors will only be importing for 70%³ of the time. This option would propose that the atomization of the interconnector capacity should reflect this modeled expected value.

 Option 2b – Reflect the modelled import flows in the Concentration Model using SMP +5%

As with option 2a, this option would use modelled interconnector flows in the Concentration Model. The current Concentration Model assumes competitive capacity where modelled generator bids fall within 105% of SMP. The Interconnector is assumed to be 100% available even though it may not always be competitive.

To address this issue this option proposes to rerun PLEXOS with the SEM SMP increased by 5% - and interconnector flows from this run would be used, this therefore addresses the concern where modelled flows may understate the competitive capacity of the modelled interconnector flows used in the Concentration Model.

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³ This number is not fixed and may change over time subject to modeling assumptions

 Option 3 – Treat each interconnector separately in the modelling, and reflect modelled flows

Building on the suggestions of options 2a and 2b, this option would model the two interconnectors separately to take account of the variance in losses across the two interconnectors. Losses on Moyle are 1.9% and losses on East-West Interconnector (EWIC) are 6%.

 Option 4 – Use historic flows to represent competitive capacity in the Concentration Model

This option bases competitive capacity on actual flows rather than estimated flows. The actual flow recorded from Moyle in the previous year (when it is operational), would be used as well as an assumption of 100% competitive capacity for East-West interconnector in its first full year of operation. For all other years the competitive capacity assumption for East-West Interconnector shall be set equal to actual flows recorded in the previous year.

• Option 5 – Wait 6 to 12 months

This option was considered to allow the RAs time to consider the impact of additional interconnection and intra-day trading on interconnector flows and bids. It would also allow the Regulatory Authorities further time to consider implementing any of the options above.

2. Summary of Comments

2.1 Respondent Names

There were 5 responses to the consultation paper, set out below and they are published with this paper where they were not marked as confidential.

- Airtricity
- Bord Gáis Energy
- Electric Ireland
- Energia
- ESB Power Generation

2.2 Summary of Comments Received

This section summarises the key comments received.

Airtricity

Airtricity agreed that it was appropriate to review the treatment of interconnection given the changes to interconnection capacity. A preference for an amended option 5 was expressed whereby the waiting period be adjusted to 6 to 8 months and modelling carried out after 6 months of data has been collected. At which point Airtricity would like to see further consultation lasting up to 2 months.

Airtricity disagreed with option 1, options 2a & 2b and option 4. They could not recommend option 3 at this stage.

Bord Gáis Energy

Bord Gáis Energy stated that there are merits to the "wait and see" approach but that an interim approach could be applied until the impact of additional interconnection and intra-day trading on interconnector flows and bids is ascertained.

Bord Gáis Energy preferred a combination of options 2b and 3 whereby modelling should treat each interconnector separately to account for losses, and the concentration model should use modelled flows based on SMP +5%.

Bord Gáis Energy stated that they did not believe that the status quo was appropriate. They disagreed with option 1, option 2a, option 4 and option 5.

Electric Ireland

Electric Ireland's preference was for option 5. Their opinion was that this would allow the market to gain experience of the impact of the new interconnector and the impact of intraday trading on both interconnectors.

Further to this Electric Ireland raised questions regarding the current DC methodology. They stated that the current DC methodology does not take account of any existing Non-Directed contracts, and that a full review of said methodology could be carried out as a follow on exercise to this consultation.

Energia

Energia preferred option 3 as this takes into account the different characteristics of the new interconnector. Energia also indicated that treatment of interconnection should be as closely aligned with reality as possible, and that the perceived understating of capacity could simply balance the potential understating of any one firm's capacity as part of the concentration calculation.

Energia's expressed the view that the issues raised in the consultation paper should be addressed and that in doing so requires a move away from the status quo, therefore they were not in favour of options 1 or 5

Options 2a and 2b where regarded as inferior to option 3 due to aggregating all interconnection and would not be appropriate given the introduction of EWIC. Option 4 was discounted entirely as Energia could not see any logical or reasonable argument for employing a historical approach.

ESB Power Generation (ESB PG)

ESB PG outlined a number of ongoing changes in the market and outlined a number of specific points relating to the historic nature of interconnector flows. Given the number of key changes to the market relevant to interconnector flows ESBPG considers the current treatment of Interconnectors to be appropriate, and would prefer options 1 or 5 to be implemented.

ESB PG stated that, in their opinion, it would be far more sensible to stay with the current arrangement until sufficient data is available to allow for an evidence based decision, coupled with a more comprehensive review of the DC quantification methodology.

3. SEM Committee Decision

The SEM Committee acknowledge that three out of the five respondents to this consultation indicated a preference for no immediate change to the current methodology. Both Bord Gáis and Energia preferred implementing a form of option 3.

By adopting option 3 the concentration model would treat each interconnector separately in the modelling, and reflect modelled flows. This option would model the two interconnectors separately to take account of the variance in losses across the two interconnectors.

In its consultation paper the SEM Committee outlined a number of benefits of adopting this approach and no specific disagreements to these benefits were raised by respondents. However, the SEM Committee recognise the comments received in relation to the drawbacks. The SEM committee is still of the opinion that the atomization of interconnector flows is the correct approach, and does not propose any changes to this part of the methodology.

One respondent had suggested a combination of option 2b and 3 whereby the concentration model includes those interconnector flows modelled at 105% of SMP. The SEM Committee are of the opinion that this is a logical and reasonable addition to option 3 and should be included. This would result in the concentration model more accurately reflecting expected flows.

Having considered the options put forward and for the reasons set out above the SEM Committee has decided that implementing option 3 is the preferred approach. In addition to this the key element of option 2b shall also be incorporated, such that interconnectors shall be treated separately, PLEXOS shall be rerun with the SEM SMP increased by 5%. The resulting interconnector flows from this run shall be used in the concentration model.

It is intended that this change will come into effect for the March 2013 round of Quarterly DC Auctions.