Single Electricity Market Committee

Market Power Mitigation in the SEM

Directed Contract Implementation Report

A Response and Decision Paper

SEM-09-030

27 March 2009

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1 Introduction

On 11th February 2009, the Regulatory Authorities (RAs) published a Consultation Paper (SEM-09-015) which outlined the methodology and processes involved in determining Directed Contract (DC) quantities and prices for the tariff year 2009/10.

The Consultation Paper proposed the following amendments to the process pursued in 2008:

- expanding the subscription window into a six-week period, compared to last year's four-week period, with the initial Subscription Window lasting for four weeks (instead of three) and the secondary window for two weeks (instead of one);
- opening the initial subscription window on 27th April 2009 and closing it on 26th May 2009, and opening the supplemental subscription window on 2nd June 2009 and closing it on 15th June 2009; and
- increasing the daily subscription limit from 15% of a supplier's eligibility or 15MW, whichever is the higher, to the greater of 25% or 25MW.

The RAs received comments from four interested parties on the Consultation Paper, one of whom marked their response as confidential. The three remaining respondents were:

- ESB Customer Supply (ESB CS)
- NIE Energy NIE PPB (NIE PPB)
- Viridian Power & Energy (VPE)

The following section summarises the three (non-confidential) submissions in turn, under the following headings:

- Directed Contract modelling and methodology;
- Directed Contract process and timelines;
- Directed Contract products, volumes and pricing, and supplier eligibilities;
- Direct Contract Agreement; and
- Other comments.

A response by the RAs is provided in each case.

The SEM Committee has determined that the implementation of the market power mitigation strategy is an SEM Committee matter within the meaning of the legislation.[1] Each section of

[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. The

this paper concludes with the SEM Committee's final decision. These final decisions are summarised in a concluding section.

SEM Committee is a Committee of both CER and NIAUR (together the Regulatory Authorities) that, on behalf of the Regulatory Authorities, takes any decision as to the exercise of a relevant function of CER or NIAUR in relation to an SEM matter.

2 Respondents’ Comments and the Regulatory Authorities’ Response

Many of the respondents have made comments on the overall contracting process, including the non-directed contract (NDC) process and transparency of incumbent suppliers’ procurement. While the RAs welcome these comments, and will certainly consider them within its remit over the NDC process and retail regulation, this paper deals with the DC Implementation Report Consultation paper alone. The comments of respondents on the Consultation Paper are summarised below, along with the RAs’ response and the SEM Committee’s final decision.

2.1 Directed Contract Modelling and Methodology

2.1.1 Initial Proposals

In the Consultation Paper, the RAs outlined the methodology and modelling involved in the determination of Directed Contracts volumes and prices. The main models utilised in the process include:

> **Concentration Model**: the Concentration Model calculates the quantity of Directed Contracts that ESB PG and NIE PPB will be required to make available to eligible suppliers, using the Herfindahl Hirschman Index (HHI) as a measure of market concentration. The target HHI is set by the RAs, who are minded to increase the target level given that it was set conservatively for the first 2 years of the market. This model relies on PLEXOS inputs and outputs. Hence, a validated PLEXOS model is required before the Concentration Model can be used.
>
> **Eligibility Model**: the Eligibility Model determines the eligibility of each eligible supplier for Directed Contracts, calculating separately for each quarter and each product-type (peak, mid-merit, and baseload). The calculations are performed in an MS Excel spreadsheet.
>
> **Econometric Pricing Model**: the Econometric Pricing Model is used to estimate the relationship between fuel and carbon prices with the price of electricity and hence to derive the Directed Contract pricing formula. The Econometric Pricing Model uses output from PLEXOS, which calculates the market price of electricity on the basis of assumptions about the prices of fuels and carbon, among other things.

2.1.2 Respondents’ Comments

NIE PPB stated that although they would be happy to be less likely subject to a DC requirement should the HHI threshold level be increased, they are concerned that due process should be followed if such a change is to be made. NIE PPB also stated that they have concerns over the integrity of the modelling that was conducted in 2008 and that the process should be more transparent and open to challenge. They commented that the ownership groupings used in the Concentration Model should be updated to include any new groupings.

VPE also stated that they did not necessarily have a concern with a higher HHI threshold but that it is important that a justification be given for any proposed change. VPE also thought that the RAs should show what a lower HHI threshold level would have meant in DC terms, should an increase be made.

2.1.3 Response by the Regulatory Authorities

The RAs note that an exercise to validate the SEM PLEXOS model input data is currently being undertaken. This work includes validating generator technical and commercial offer data by unit, variable O&M costs, variable cost input forecasts; and the calibration of PLEXOS against actual half hourly ex post data on unit schedules, shadow prices, uplift and SMP from the Market Operator. The work will be completed by the end of March. The intention is derive a set of technical input data that is either consistent with generators' own assessment or with what they submit to the Market Operator; and a means of calculating commercial offer data that is consistent with adherence to the Bidding Code of Practice.

The RAs will publish the validated input database (excluding data which is deemed to be commercially sensitive) as has been done in previous years, along with a report on the validation exercise. The RAs will also host a workshop on the validation project to inform participants of our key findings.

The RAs reject any questions of the integrity of the overall modelling process. The RAs believe that the overall modelling process has been carried out in as transparent a manner as possible in previous years, with the constructive input of participants. The RAs will continue to adopt this approach during the 2009 process.

The RAs note the concerns that the participants may have regarding any change to the HHI threshold level. Should the RAs consider a change to be appropriate at this stage of the SEM, adequate justification will be provided in the Directed Contract Pricing and Quantification Decision Paper to be issued by 17th April. As VPE have suggested, the RAs will also endeavour to show what effect any change in the HHI level had on DC volumes.

2.1.4 Final Proposal

Having considered the various responses on the operation of all the Directed Contract models, the SEM Committee has decided to continue to use the models (concentration, eligibility and econometric pricing models) and methodologies used in the equivalent process last year.

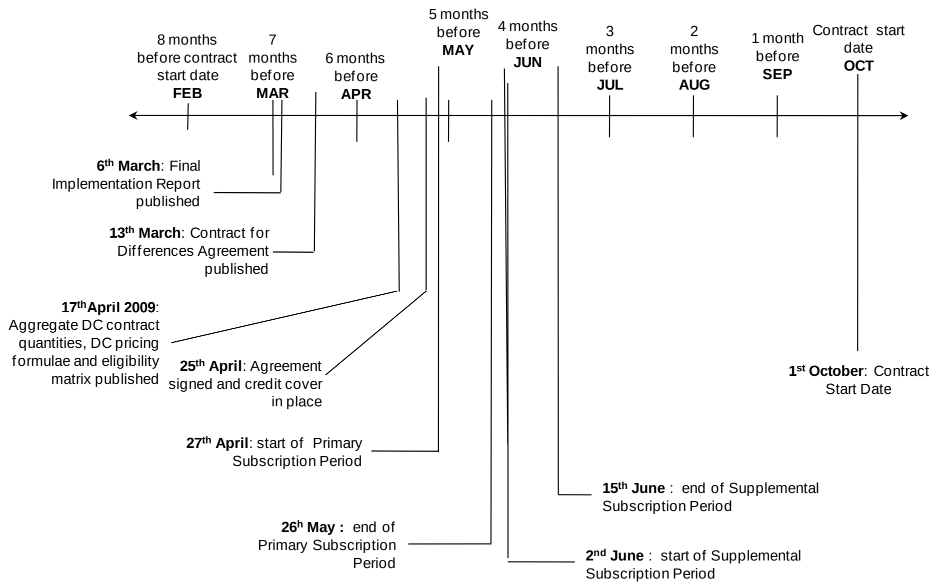
The concentration and econometric pricing models will in turn rely on the inputs and outputs of the newly validated PLEXOS model. Justification will be provided should any change be made to the HHI threshold level used in the Market Concentration model. The RAs will maintain the high level of transparency which has existed over the past two years with regard to publication of data.

2.2 Directed Contract Processes and Timelines

2.2.1 Initial Proposals

In the Consultation Paper, the RAs outlined the processes and timetable for the Directed Contracts subscription process in 2009/10. The proposed timetable is set out below.

2009 DRAFT DIRECTED CONTRACT TIMETABLE



2.2.2 Respondents' Comments

NIE PPB emphasised that they are disappointed that the proposed timeline shows no advancement of the programmes for those elements for which the RAs are responsible. They noted, in particular, that the quantities and pricing formulae are not scheduled to be published until 17th April 2009, and that the RAs are seeking commencement of the NDC process before this date.

They were concerned about the potential impact to participants' systems if there is a radical revision to the formula and stated that the pricing formula should be published at the earliest possible date and that any risk of a change to its structure and components should be flagged to participants as early as possible. They also stated that the DC and NDC processes need to be adequately choreographed so as to avoid confusion among participants.

NIE PPB welcomed the flexibility proposed in the paper in the event that NIE PPB are required to offer Directed Contracts in 2009. They asked for as much notice as possible of any requirement, or risk thereof, to offer DCs.

VPE felt that there should be no supplemental subscription period and that any unsold DC contracts should go into the NDC process. VPE believed that this would be more in line with market dynamics.

2.2.3 Response by the Regulatory Authorities

The RAs note NIE PPB's disappointment as regards to the RAs' overall DC timeline. There is always an inevitable challenge for the RAs in terms of timelines of carrying out a thorough and robust validation process, and using the most up-to-date forward data in order to establish contract prices and volumes, which are then released to market participants.

On this basis, 17th April 2009 is the earliest date at which the quantities and pricing formula can be published, but the RAs will endeavour to flag any major change to the formula's structure or components as soon as possible. However, from our experience over the past two years, the RAs are not aware that the form of the regression formula has any significant impact on participants' systems. The RAs will also give NIE PPB as much notice as possible of any requirement to offer DCs.

The RAs would also draw attention to the information paper (SEM-09-016) published on the All Island Project website (www.allislandproject.org), which set out the RAs' views on the conduct of the overall contracting processes in 2009. The RAs will endeavour to make more specific information available to market participants as soon as it becomes available from the contract sellers.

The RAs also note that the NDC process is not directly regulated and that the prices, while being actively monitored by the RAs, are not regulatory-determined. The purpose of DCs is to mitigate market power in the SEM and essentially to provide a level playing field for all participants. Therefore, the RAs would not consider it appropriate removing the supplemental subscription window and placing any unsold DC contracts into the NDC process, with the reserve price generally set by those on whom DCs are imposed.

2.2.4 Final Proposal

In the light of respondents' comments, the SEM Committee has decided that:

- the initial subscription window will open on 27th April 2009 and close on 26th May 2009;
- the supplemental window will open on 2nd June 2009 and close on 15th June 2009.
- the Contracts for Differences Agreement and ESB PG Subscription Guidelines paper be published by Friday 3rd April to take of account of decisions made in this paper, as relevant.

2.3 Directed Contract Products, Volumes and Pricing and Supplier Eligibilities

2.3.1 Initial Proposals

In the Consultation Paper, the RAs proposed that for 2009/10:

- the Directed Contract products would be segmented by quarter (Q4-08 to Q3-09) and by product type (baseload, mid-merit and peak) and that each of the ten products could be subscribed for separately;
- suppliers would be able to subscribe on each subscription day for 25% of their eligibility or 25MW, whichever was the higher.

2.3.2 Respondents' Comments

ESB Customer Supply noted that if the subscription window is extended, and as the DC volumes being offered may be significantly reduced in 2009, then typical daily subscription volumes may be quite small. They also noted that the DC Subscription round is proposed to take place during the NDC trading window.

ESB CS proposed that a subscription process similar to that implemented by NIE PPB in 2008 be considered, whereby suppliers subscribe on a weekly basis and the DC price is set based on a weekly average. ESB CS also noted that it is intended to increase the max daily subscription level to 25%/25MW. They had no specific objection to this modification but stated that the logic behind it is unclear given the proposed longer subscription window and the possibility of an increase in the HHI threshold level.

VPE recommended that a greater proportion of DCs be for mid-merit and peak products, stating that there is a lot of baseload competition in the market. They made the point that in their view mid-merit 1 contracts are designed for PES Suppliers and that only mid-merit 2 contracts have value.

VPE suggested that DC derived prices should reference NDC prices. They stated that this methodology, based on market rates, would be preferable to a complete reliance on accurate and robust regulatory modelling. They noted that it would be prudent for the RAs to do their modelling work in conjunction with this and to reserve the right to intervene in DC pricing should there be concerns over the exercise of market power in the NDC auctions.

2.3.3 Response by the Regulatory Authorities

As stated in section 2.2.3 above, the RAs outlined their views on the conduct of the overall contracting process (DC and NDC) in an information paper (SEM-09-016), noting that only DCs come under the RAs' direct remit. In saying that, the RAs expressed its views on the NDC process and certainly promote the need for that process to become more dynamic in terms of the length of the contracting window, in order to diversify the risk of hedging at times of high-fuel prices, and in terms of greater product variety. Therefore, the RAs would expect the extended and somewhat ongoing NDC process to possibly overlap with the DC process.

The RAs note that NIE PPB's DC process in 2008 was adopted as a means of implementing a subscription process for a relatively limited volume of contracts at short notice (relative to ESB Power Generation). The process approved by the RAs in the case of ESB PG for the past two years has proven to be effective and any substantial change to it at this stage would likely result in significant system changes.

The rationale for increasing the maximum daily subscription level to 25%/25 MW was to give suppliers greater flexibility and choice in how they subscribe to their DC eligibilities. This essentially affords suppliers the ability to diversify 'high fuel price risk' in a way that they deem appropriate.

The RAs note VPE's preference for less baseload contracts and more mid-merit 2 (weekday) products. An objective of the validated SEM PLEXOS model will be to simulate what happens in the actual market, and to this end it should reflect the segments of the market (baseload, mid-merit and peak) which are concentrated and therefore require the imposition of DCs. Given the output of the PLEXOS model, the proportion of contracts that are baseload, mid-merit and peak are calculated through the Market Concentration Model.

The RAs note the general demand for the mid-merit 2 product from some independent suppliers. The RAs expect that ESB PG and NIE PPB will offer mid-merit weekday only contracts through the NDC process. However, from a DC implementation perspective, a move away from the conventional times and products (baseload, mid-merit and peak) in which market power is measured, and contracts volumes determined, is problematic.

It is difficult to assign two different mid-merit products as they are essentially mutually exclusive in the underlying methodology, and therefore would require an arbitrary split between the products. In addition, mid-merit 2 DCs could well mean a greater volume of baseload contracts than would otherwise be the case, as the hours which are exclusively baseload increases, Given the complexity it introduces to the DC process, the RAs see no great benefit in requiring ESB PG and NIE PPB to make the same product available in the this year's Directed Contract subscription process.

A proposal has also been put to the RAs to reduce the restriction on suppliers' participation in the supplemental subscription window. The rules of the past two DC processes have restricted participation in the supplemental window to those suppliers who have subscripted to 100% of their eligible volumes for all products in the primary window. The proposal from one party is to allow a supplier who has subscribed for 100% of its eligible volume for a specific product to be allowed to participate for any remaining unsold volume of that product in the supplemental window.

For example, the supplier who purchased 100% of its eligible volume for the Q1 2010 baseload product, but not for the Q2 2010 baseload product, would be eligible to make elections in the supplemental window for the Q1 2010 baseload product, but not for the Q2 2010 baseload product.

While the original intent of this rule was primarily to remove the incentive to 'cherry-pick' products and reduce the risk of unsold DCs, the RAs believe that, particularly given the success of the previous two subscription processes (in 2007 and 2008), there is certainly merit in relaxing this rule. The main advantage for suppliers will be to remove the need to purchase all products, which may not be their preferred strategy, to ensure eligibility for participation in the supplemental window.

A further proposal the RAs might anticipate would be to open the supplemental window to all suppliers, regardless of purchases in the primary window. The RAs would not be keen to relax the restriction to this extent for two reasons. Firstly, the intention is to sell as many directed contracts as possible during the primary window and thereby ensure that the objective of directed contracts is largely met in the first instance, with any remaining and relatively few DCs being purchased in the supplemental window. Secondly, we understand that the risk of a substantial volume of unsold contracts being carried over to the supplemental window could impede contract sellers constructing an underlying hedge in the fuel markets, some of which are understood to have reduced liquidity in the current economic climate.

2.3.4 Final Proposal

Having considered the various comments of respondents, the SEM Committee is satisfied that the RAs' original proposals should stand:

- suppliers will be allowed to subscribe for Directed Contracts on a quarterly basis;
- the daily subscription limit will be 25% of a supplier's eligibility or 25 MW, whichever is higher.
- suppliers will be eligible to make elections in the supplement subscription window for a specific product(s) to which they have subscribed 100% of their eligibility for that specific product(s) in the primary subscription window.

2.4 Directed Contract Agreement

2.4.1 Initial Proposals

In the Consultation Paper, the RAs did not propose any changes to the Master Directed Contract for Differences Agreement.

2.4.2 Respondents' Comments

NIE PPB stated that as the Master Directed Contract for Difference Agreement is scheduled for execution shortly before 27th April 2009 and NIE PPB may need time to modify this document to reflect changes to the DC Implementation arrangements agreed for NIE PPB, the execution date for Master DC Agreements with NIE PPB should retain a degree of flexibility.

2.4.3 Response by the Regulatory Authorities

The RAs acknowledge the uncertainty surrounding the DC Implementation arrangements for NIE PPB, and agree that the execution date for Master DC Agreements with NIE PPB should retain a degree of flexibility.

2.4.4 Final Proposal

The RAs understand that there may be several minor amendments required to be made to the DC Master Agreement to improve overall administrative efficiency. Any such amendments will be published sufficiently in advance of the Subscription Window.

2.5 Other Comments

Some respondents raised a number of other issues in their responses. These are summarised below:

2.5.1 Respondents' Comments

ESB Customer Supply asked the RAs to clarify whether the idea of allocating DC volumes on a jurisdictional basis in order to reduce foreign exchange costs was considered when drafting the consultation document.

NIE PPB were concerned that the 'Subscription Period – Quantity Elections' section assumes a common quantity allocation process for ESBPG and NIE PPB. They noted that the report states earlier that the RAs will discuss with NIE PPB how it plans to offer DCs should it be required to do so, and that it is unlikely that the quantity election processes will be the same. NIE PPB also felt that there is no reason why suppliers should be required to elect the same percentage to ESBPG and NIE PPB on any given day.

VPE suggested that the price, volume and identity of successful market participants in the DC and NDC processes be published in order to increase transparency and support retail competition. They consider the market to have precedence for such an approach in the Moyle auctions where this level of transparency has been accepted by all market participants.

2.5.2 Response by the Regulatory Authorities

The RAs do not believe it is appropriate to offer DCs on a jurisdictional basis. There is sufficient liquidity and tools available in the FX market for participants to manage their currency risk effectively and efficiently.

The RAs acknowledge that that it has to be decided how NIE PPB will offer DCs should it be required to do so. The RAs note that the requirement for suppliers to elect the same percentages for both sellers was not imposed on NIE PPB last year. The RAs will again be open to engage constructively with NIE PPB on developing a specific DC process should it be required to offer DCs.

The RAs note VPE's point on transparency and note that it is difficult, if not impossible, to reach industry consensus on the appropriate level of transparency in the contracts market. The RAs would be concerned with imposing the requirement to publish all volumes taken and the prices paid by each supplier under the DC and NDC process. This would not be typical practice in other markets. The Moyle auction is a different case as it is a capacity auction.

Having said that, the RAs would support transparency in the NDC market, without infringing on the rights of participants to maintain their commercial data as confidential. One means of achieving this would be for all NDC contract sellers to publish their individual volumes of trades and the corresponding strike prices as soon as possible after each auction. This is something which the RAs did upon completion of the overall 2008 process.

3 Conclusions

Having considered the various comments of respondents, the SEM Committee is satisfied that the RAs' original proposals in SEM-09-015 should stand. In particular, by comparison with last year:

- the subscription window will be expanded into a six-week period, compared to last year's four-week period, with the initial Subscription Window lasting for four weeks (instead of three) and the secondary window for two weeks (instead of one);

- the initial subscription window will open on 27^{th} April 2009 and close on 26^{th} May 2009, and the supplemental subscription window will open on 2^{nd} June 2009 and close on 15^{th} June 2009;

- the daily subscription limit will increase from 15% of a supplier's eligibility or 15MW, whichever is the higher, to 25% or 25MW; and

- suppliers will be eligible to make elections in the supplement subscription window for a product(s) to which they have subscribed 100% of their eligibility for that product(s) in the primary subscription window.

The RAs will discuss with ESB PG and NIE PPB whether and to what extent information about the timing, volumes, products and pricing of non-directed contracts and other terms can be published; and whether similar information on the Public Service Obligation (PSO)-backed contracts can also be published then.

The RAs also intend to undertake a review in advance of next year's DC implementation process of how best to structure the products and overall subscription process to facilitate retail market competition, while acknowledging that the primary objective of DCs is to mitigate generation market power in the SEM pool market.