Integrated Single Electricity Market (I-SEM)

Forwards and Liquidity

Discussion Paper

(SEM-15-010)

Power NI's Response

27th March 2015

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Introduction

Power NI welcomes the opportunity to respond to the Discussion Paper (SEM-15-010) published by the Regulatory Authorities (RAs) in relation to Forwards and Liquidity in the Integrated Single Electricity Market (I-SEM) and believes in general, this approach could be productive in other work streams also.

There is a need for a strong focus on the development of a liquid forward market in I-SEM as the majority of customers, whether domestic or commercial, require energy tariffs with price certainty to insulate themselves from volatility in wholesale energy markets; and ultimately, as consumers pay for the energy market, they should have the choice of a fixed tariff if they desire it. As a non-vertically integrated supplier with a customer base largely on regulated tariffs, Power NI is entirely dependent on forward liquidity to manage risk and deliver price stability for customers.

A liquid and transparent forward market should enable suppliers to hedge efficiently, shield consumers from volatile spot markets and offer consumers competition and innovation in tariff structures. Forward markets should also provide open access to mitigate market power and generate price signals to drive investment. It is crucial therefore that there is a fully functional and liquid forwards market in I-SEM.

Lessons learned from SEM

The forwards market in the current SEM suffers from a number of significant deficiencies, some of which are highlighted in the discussion paper. Power NI considers the key issues with the forward market include;

- Lack of available volume
- Infrequency of trading opportunities
- Lack of transparency
- Small market with concentrated number of players and market dominance
- Inexplicable price spreads
- Scarcity premiums
- Lack of non-physical traders
- No real benchmark forward curve

There are a number of factors which influence the lack of liquidity in SEM which are also factors in the I-SEM High Level Design (HLD), and hence are likely to continue to cause similar issues to those stated above. The delivery of liquidity in the DAM to facilitate effective market coupling will not in itself deliver a liquid forwards market (as evidenced by the GB experience).

As well as the systemic issues of market size and concentration, the chosen HLD will not address scheduling risk to generators, which will continue to act as a disincentive to their participation in forward markets. This additional risk, not present in bilateral

markets, compounds inherent difficulties for a small market with a limited number of participants.

The issues around scheduling risk should be addressed as a priority in the market design, however regardless of this issue, Power NI continues to believe market maker obligations and/or self supply restrictions on certain players need to be considered as a key requirement, and interventions from the RAs may need to go further to address the stated issues.

Care will need to be taken that any interventions in the market are made with the objective of delivering truly improved forward liquidity. For instance, a feature of the current market which does not deliver significant improvement to liquidity is the PSO CfD auction, where large volumes are sold only 3 months ahead, making a limited impact in improving forward liquidity.

Also in this vein, the proposed Reliability Options and their interaction with the forwards market needs to be fully understood, and whether the obligations on generators involved in this mechanism will place further risks on them and make it less likely that they will actively sell CfDs. And, given that scheduling risk has been highlighted as a key issue for generators offering forward contracts, the impacts of DS3 and the intended increases in wind penetration must also be given consideration.

Finally, addressing market power in the forwards market (and indeed all market timeframes) should be treated as a priority. The existing market design, and the scheduling risk which endures in the I-SEM HLD, reinforces the dominance of ESB in the forward timeframe. ESB have a large and diverse portfolio of thermal generation, which to some extent mitigates the scheduling risk that prevents smaller and independent generators from participating in the forward market, which weakens liquidity and competition.

Specification and nature of forward products

Given the assumption that I-SEM will have only financial trading instruments in the form of CfDs for within zone trading and that they will be struck against the day-ahead market as a reference price it is not unreasonable to expect that product requirements will be broadly similar to the existing SEM CfDs. The current mix of Baseload, Mid Merit, Mid Merit 2 and Peak should be maintained, with monthly, quarterly and seasonal products to provide a forward curve at least 2 years ahead.

Using the current suite of products as a basis for the new I-SEM CfDs should mean that there is limited requirement for intervention from the RAs in terms of the specific product definitions, although there should be a strong focus maintained on ensuring the delivery of these products for the full extent of the forward curve. Consideration

should be given as to whether Directed Contracts or PSO-backed contracts could be better utilised to at least partially deliver increased liquidity, particularly in the latter part of the forward curve. Both DCs and PSO CfDs have been essential in delivering the level of liquidity present in SEM, and this should be reinforced and improved upon in I-SEM.

The transitional arrangements will need to be considered with some urgency to ensure there is not a 'cliff-face' scenario in hedging for 2017 onwards. Suppliers will require hedging products for this time horizon in the near future, and it is possible that any liquidity will evaporate given uncertainty in the market. There may need to be a particular intervention to bridge this period, ensuring tariff stability and protection of consumers from wholesale price volatility.

Nature of participation, including market participation obligations

The potential for market maker arrangements highlighted in the discussion paper is worthy of consideration to address a number of the issues affecting liquidity. Market maker obligations are advantageous in that there is no requirement for direct intervention in setting forward prices (a feature of Directed Contracts) but can provide liquidity for all players by placing requirements on minimum volumes and maximum bid-offer spreads. This should deliver a benchmark forward curve which is determined through supply and demand dynamics of both suppliers and independent generators, as opposed to a deterministic regression formula.

Market maker arrangements may also be an effective tool for market power mitigation in the forward time frame, if the parameters around trading are set in such a way as to ensure fair competition amongst all participants. Detailed analysis of the experience of the 'Secure and Promote' intervention in GB, with a range of views from all stakeholders (OFGEM, Big Six, independent generators and suppliers) would be useful in highlighting both the effectiveness of the measure in general, and any specific learning points gained from the implementation.

Conducting this analysis should be essential before any detailed design is considered around these measures, while being cognisant of the differences between the GB market and I-SEM HLD, both in terms of market design e.g. self-dispatch in GB, and market power. The focus for competition in GB is for entry of new suppliers against a backdrop of six vertically integrated companies with large generation portfolios, whereas in I-SEM, ESB will have the single large thermal generation portfolio and enduring dominance in the forward market. For this reason, market maker obligations do not remove the need for ring fencing between ESB generation and supply businesses, as the presence of a dominant vertically integrated player would fundamentally undermine competition in the retail market.

As the forwards market in the proposed I-SEM design is likely to suffer many of the deficiencies of the SEM market (e.g. scheduling risk), it would appear unlikely that

participants will voluntarily deliver the products, volumes and bid-offer spreads to foster genuine improved liquidity. Hence for this reason, any market maker obligations will likely require a mandatory regime which will be intimately linked with any actions taken to address market power concerns; potentially there may be a requirement to go further than mandating bid-offer spreads and ensure significant improvements in traded volumes are achieved. These obligations should certainly be looked at in terms of ESB as the dominant participant, but other parties with a significant volume of in-merit generation should also be considered.

Whilst it may be desirable to create conditions to facilitate access for small parties, market access in itself does not necessarily resolve the lack of liquidity in the market, and any intervention should in the first instance be targeted to address this. If further specific measures on market access for small players could increase liquidity in the market e.g. by facilitating entry for non-physical/financial parties then clearly they are worthy of consideration, however if there was to be a market wide minimum standard on the approach to counterparty negotiations and terms, then it would be desirable that these were reached by consensus amongst participants. Again, analysis of the GB Supplier Market Access rules would be vital before proceeding with any detailed design decisions in this area.

Interactions with market power mitigation, including Directed Contracts

It is imperative that any work stream considering forward market issues be closely intertwined with market power mitigation, as any measures taken for one element will inevitably impact the other. Directed Contracts (DCs) are an existing example of this in SEM, as while primarily intended as a market mitigation measure in the spot market they have provided some form of liquidity, which albeit limited, has been extremely important given the general context of insufficient traded volumes. We suggest they should be tailored to address market power in the forward market.

Having stressed that the current fundamental issues negatively affecting forward market liquidity are likely to get worse in future, we would not support the removal of any measure that has had a positive effect on liquidity and market power in the forward market, unless there was a high degree of confidence that new measures (e.g. market maker obligations) would deliver greater liquidity and that DCs could impede their development. In addition to this, DCs have played a useful role in providing a transparent pricing benchmark for the forward market, giving suppliers a degree of confidence in setting retail tariffs. The pricing formula has also been used as a reference in credit calculations and as a yardstick in auctions and OTC windows to highlight the level of scarcity premiums; more examples of DCs as a vital measure in the functioning of the market.

In the absence of a measure for which participants have a high level of assurance of addressing the liquidity issue, or in any case as a transitional measure to maintain

forward trading in the lead up to the launch of I-SEM, DCs must continue to be offered to the market. It is also preferable that at minimum they should be offered in their current form, although changes which will further improve liquidity for suppliers should be considered. For example, the change from an annual trading window, to 4 quarterly windows has been a positive change that should be maintained. As mentioned previously, a potential further improvement would be to extend the time horizon over which DCs (and PSO CfDs) are offered, to provide liquidity for a full 2 year forward curve.

Whether or not DCs are maintained in the new market design or extended as an interim measure, market power mitigation measures are crucial in all market time frames. One of the issues highlighted as affecting liquidity in SEM was that it is a relatively small market with a concentrated number of players and a dominant player in generation, and this will continue regardless of market design.

The importance of the forward market, particularly for retail pricing, means that without intervention, the market power issue will likely have a negative effect on retail competition, to the detriment of all consumers. For this reason, market power mitigation measures are essential.

In addition to DCs and market maker obligations, another option for market power mitigation would be self-supply restrictions which could prevent excessive 'virtual' vertical integration by dominant entities. However, for a number of reasons this may be difficult to enforce, for example, trading between ring-fenced participants could take place on legitimate platforms before other participants are able to react and it would be extremely difficult to determine if a breach had occurred. Also, self-supply restrictions would not necessarily aid forward liquidity, as there would be not be an increased incentive to offer volumes to the market, and in fact, volume could be withheld and traded through the day-ahead market.

A further alternative measure could be to create an obligation on the proposed Aggregator of Last Resort to offer contracts and afford increased forward liquidity to the market. Although the increasing portfolio of renewable generation on the island is viewed as a headwind to liquidity improvements in terms of the thermal generation it is likely to displace; an obligation to offer forward contracts could counteract this, and any cost variances could be passed through to the market and socialised (as per the PSO contracts), on the basis that there is a net benefit to customers from progress on liquidity.

Overall, market maker obligations combined with mandated volume obligations on the dominant participant in the I-SEM forward market may be the most effective market power mitigation and liquidity measure, and they are compatible with the EU Target Model and would be more easily monitored and enforced than other general liquidity targets. However, addressing the liquidity issue may require a suite of

measures, and at least in the interim, an extension or expansion of the current DC regime.

Mediums for trade and trading institutions

The possibility of conducting forward trading via an exchange is attractive from a number of points of view, particularly by reducing the costs of credit which are currently prohibitive in comparison with other markets. If this could be linked with the credit requirements in other parts of the market e.g. day-ahead, balancing, with netting applied, if and where possible, then this would have maximum effect on reducing costs.

Also, the opportunity to contract with a central counterparty on a standardised basis should ensure fair terms for all participants and potentially encourage interest from other players e.g. traders without a physical position. However, an exchange in itself will not address the fundamental issues identified as affecting liquidity, so would need to considered as part of the design and not a complete solution. It also should be treated as a desirable component rather than essential – in the example of the GB market maker regime, trades are still conducted bilaterally rather than via a central counterparty.

Given the number of participants and likely trade volume (even in an ideal scenario with good liquidity) it may prove relatively costly to create a bespoke I-SEM exchange, however, if an exchange with a single clearing house was established across all market timeframes, the benefits of netting of collateral could deliver significant savings which could make the case for an exchange convincing.

Certainly in the first instance it would be prudent to investigate whether an existing exchange could adapt the services and legal and trading frameworks required to operate an I-SEM forward market, at a cost that the market considers acceptable, and if this cost was to deliver a genuine improvement in trading conditions which improved liquidity, it would be worth considering whether there is a net benefit to consumers. As the viability of an exchange is potentially questionable, it would be worthwhile if its development was led by the RAs with input from the market to ensure fair consideration is given as to whether it will be of overall benefit.

Factors affecting liquidity in near-term markets

In the proposed I-SEM design, the day-ahead market is the initial exclusive route to market for trading physical positions, and since it is the basis for market coupling and likely the reference price for any forward contracts, it should attract the required liquidity, albeit this could be impacted by the RAs decision to remove mandatory participation in the day-ahead market. Also, with increasing variability in renewable generation and the need to fine tune positions in the demand side of the market, this should in turn encourage trading in the intra-day timeframe (dependent on the RA

decision on how to give effect to priority dispatch). The absolute key to this though is the design of the balancing market, and that the imbalance price provides the market with signals that incentivise managing positions in the day-ahead and intra-day markets.

One factor which requires careful consideration is the proposal that the intra-day and balancing markets could run in parallel before gate closure. The potential interactions for market participants that could be operating in and affected by both markets need to be clearly understood and addressed, or this could significantly hamper liquidity in the intra-day market, which would particularly be an issue for variable generation and demand participants in managing their position.

Design of I-SEM Financial Transmission Rights

Given the HLD decision in favour of FTRs, and working on the assumption that their use is agreed with OFGEM, the decision on the nature of FTRs should be made with the objective of further enhancing liquidity. For this reason, FTR obligations are a more attractive choice than FTR options as they should create a simpler pathway to access forward markets in GB as an alternative hedging strategy.

As the day-ahead markets in I-SEM and GB will be coupled, and the value of the FTR derived from any price differential, it should increase trading opportunities between the two markets, which both offers hedging opportunities to I-SEM participants, and could attract participants in the GB market to trade FTRs and in the I-SEM CfD market, both of which would increase competition and liquidity. It is possible that this could be achieved through FTR options, but FTR obligations are a simpler solution and hence more desirable.

In terms of the applicable financial regulations, it is important that a view is taken on the impacts of these on market participants as soon as possible. Without a full understanding of the detailed requirements at this stage, it is difficult to determine any particular measures required, however in principle, it is more important that the correct solution is chosen to fit the I-SEM design and meet the objective of a liquid forward market.

Similar to other elements of the FTR design, transmission losses should be taken account of in a way that minimises complexity and encourages their use as a hedging tool. The most desirable solution is that FTRs are a simple CfD benchmarked to the price differential between the 2 markets, however if they were adjusted e.g. by transmission losses etc., then participants would adjust their bidding strategy accordingly.

Allocation

Provided the solution is acceptable within the EU Target Model and fits with the I-SEM HLD, arrangements similar to the current allocation of transmission rights in

SEM are preferable, i.e. auctions for defined capacity products in a suite of products and calendar determined by the interconnector owners in consultation with market participants. Requirements for the Single Allocation Platform should at least contain functionality to deliver arrangements on a par with the current situation, and if further progress can be made e.g. to secondary trading arrangements, then this should increase trading opportunities and hence liquidity. As the precise nature of the allocation arrangements is contingent on the design of the single platform, it would be useful if the RAs specified a set of arrangements which are consistent with the platform design, at least in the first instance.

Firmness

When considering the firmness of transmission rights, it is important to view the wider role than FTRs will play in I-SEM, and given that liquidity and the identified systemic issues that will impact it are a key concern for the market design, FTRs must be designed to maximise their potential benefits. Therefore, if possible, FTRs should carry full financial firmness. If FTRs carry the risk of curtailment, this will reduce their value as a tool for forward trade between I-SEM and GB and can only negatively impact liquidity. A firm FTR should logically also increase their value and be a benefit to the interconnector owners, with the owners then taking risk and responsibility for delivering available capacity. As this is an on-going issue at European level, it is sensible for the RAs to lead discussions in this area, being mindful of the wider impacts on liquidity that FTRs are likely to have.

Revenue Adequacy

Revenue adequacy for existing and potential future interconnectors is clearly an important issue as they are a net benefit to all consumers and participants. However, similar to the issue with firmness of FTRs, a balance needs to be struck between the risks and physical realities of operating an interconnector in SEM (e.g. limits on ramp rates) and ensuring FTRs are a simple hedging instrument which act to maximise liquidity in the forward time frame, and given the issues highlighted throughout this paper, any opportunity to positively impact liquidity should be taken. As part of the design process, analysis is required to quantify risks to revenue adequacy, and potentially other options for funding any deficit explored. Revenue adequacy cannot be viewed in isolation for interconnectors however, and must be considered for the overall I-SEM arrangements to ensure sustainability and security of supply.

Market Power

The I-SEM HLD has been chosen with regards to the potential for efficient market coupling weakening the market power of dominant participants; however it has been acknowledged market power mitigation is a key consideration in the forward markets. This is equally a consideration in the market for FTRs with the potential for

a concentration of rights amongst dominant participants. Some form of maximum capacity holdings may therefore need to be considered to mitigate against this risk; again, further analysis is required to understand the potential impacts of market power in this area.

Interaction with CfDs, Reliability Options and Renewable Certificates

It is important to be aware of the potential impacts of FTR design on a number of other areas; as outlined in the previous sections, FTRs have the prospect of positively impacting the I-SEM CfD market, if their design offers a route to hedging and price certainty for market participants. To maximise this, careful consideration should be given to when trading in each instrument takes place relative to each other i.e. being able to trade FTRs simultaneously to I-SEM CfD auctions/trading windows should give parties increased confidence in the pricing of both.

In terms of Reliability Options and the relevant renewable schemes, careful consideration needs to be given to how the full suite of forward products interact so that further risks are not imposed on participants to the impairment of liquidity.

In terms of any renewable schemes, we do not foresee any particular interactions with FTRs, including for the new NI CfD scheme which is assumed to be benchmarked against the I-SEM day-ahead market.

Transitional Arrangements

The introduction of FTRs in whatever form will be a significant change from the current arrangements. For this reason, particular care must be taken over the transitional period. Until the detailed design of FTRs is finalised, there should be a limitation on any trading of interconnector capacity beyond the planned introduction of I-SEM.

Even when the detail on FTRs is known, running auctions will clearly be an issue unless the Single Allocation Platform is available (although they could be run on a manual basis in the interim), and there will be a lack of confidence from participants in the true value of an FTR, which in any case may dampen participation in auctions. Any valuation is contingent on availability of a forward curve in I-SEM, and for this purpose, an extension of the DCs as part of the transitional arrangements may be helpful. Also, the use of maximum capacity holdings for dominant participants should be considered as a market power mitigation measure, particularly in the transition period. Some form of arrangements for secondary trading, even on a manual basis, should be facilitated to further de-risk the initial capacity auctions.