SEM Market Power & Liquidity

A SEM Committee Draft Decision

25th November 2011

SEM-11-089

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EXECUTIVE SUMMARY

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1. Overview

Last year the Regulatory Authorities (RAs), on behalf of the SEM Committee, commenced a review of market power and contract liquidity in the SEM. The overall aim of this project was to identify practical ways in which the RAs can further promote competition in the SEM by reducing/mitigating market power and/or improving contract liquidity over the course of the next 10 years. In this context the project has also examined the various components of ESB's proposed re-integration.

The purpose of this SEM Committee draft decision paper is to:

- Summarise the key comments received to CEPA's report on market power and liquidity which was published last December for consultation, and provide an RA response to these comments. Please see section 2 of this paper;

- Provide an update on recent developments relevant to market power and liquidity, including in relation to contract liquidity and the new "partial vertical integration" proposal from ESB received in June 2011. This is detailed in section 3, with CEPA's September 2011 report on ESB's partial integration proposal appended to this paper; and,

- Provide the SEM Committee's view regarding issues raised as part of this project, including in relation to the market power mitigation measures, contract liquidity and the issue of ESB's requests to integrate its businesses. Please see section 4 of this paper for details - a summary of these proposals is provided below.

2. Request for Comment

All comments to this draft decision should be sent to the CER's Kevin Hagan, at khagan@cer.ie, by no later than **17:00 on Friday 16th December 2011**. Those respondents who would like certain sections of their response to be confidential should submit the relevant sections in an appendix market "confidential".

Talking on board responses to this paper, a final decision in this area is expected from the SEM Committee in Q1 2012.

3. Policy Proposals

BCoP, MMU and DCs

The SEM spot market at present is quite highly concentrated. However, the SEM Committee is satisfied that there has been no significant market power exercised in the spot market to date due to the relevant market power mitigation measures in place. BCoP, MMU and DCs have helped ensure that generator bids are at competitive SRMC levels, resulting in SEM wholesale prices that are efficient and providing the correct market signals CEPA also believe that these measures have played a strong role in mitigating market power.

Looking forward, CEPA's spot market modelling analysis for 2015/'20 indicates that while ESB's market power would not be at levels of concern *on average*, there would still be certain hours/scenarios when the RSI is below 1.2, the threshold that typically suggests market power potential. Therefore CEPA suggested that the RAs maintain a robust market power mitigation strategy for the foreseeable future.

In view of this and the responses to the CEPA paper, the SEM Committee will maintain BCoP/MMU and DCs as market power mitigants for the foreseeable future. If the spot market becomes significantly less concentrated in the future, the Committee would then review these market power mitigation measures.

ESB Vertical Ring-Fencing

The SEM Committee will not allow either the ESB full vertical integration or "partial vertical integration" options for now, given that:

- The spot market is quite highly concentrated using the internationally applied HHI measure;

- Contract market power potential would be more significant than the status quo. The exercise of contract market power by ESB could be disruptive to other suppliers and retail competition, to the long-run cost to the consumer. There could also be informational advantages which would benefit Electric Ireland with either vertical integration option, which could have a negative impact on competition in both the wholesale and retail markets; and,

- CEPA are of the view that full vertical integration is unfavourable as it could damage competition. While it is acknowledged that there could be more RA "contract regulation" under ESB's "partial vertical integration" option, along with a similar level of liquidity to present levels, CEPA are of the view that this option is unfavourable as doing so would replace a structural remedy with a likely less efficient and/or effective regulatory remedy.

The SEM Committee would, however, separately consider any proposals for ESB vertical integration in the context of a material change to market power in the SEM. An example of a material change would be a significant reduction in ESB's generation plant portfolio.

ESB Horizontal Integration

The following considerations make the horizontal integration of ESB generation more acceptable:

- CEPA states in the December paper that, with BCoP in place, *"the operational horizontal separation of ESB seems to have little value in promoting competition, whilst adding some cost to ESB, and thus an operational integration should be considered".* There would not be the higher market power risks associated with full vertical integration;

- ESB could make generation cost savings from horizontal integration, with low market power risks for the end customer. Any efficiency gain would be welcome, especially in the current economic climate; and,

- Horizontal integration would significantly increase the quantity of DCs available to eligible market participants. Using the current methodology, DCs would rise noticeably from the current 1.66 TWh level, probably doubling or more to circa 4 TWh, though the exact figure would depend on modelled fuel prices, etc. The increase in DC volumes would increase the proportion of total contracts made available that are regulated by the RAs, reducing the contract market power potential.

In light of these considerations, the SEM Committee will allow the horizontal integration of ESB generation units, i.e. of ESB PG and ESBI. It is proposed that horizontal integration will become fully effective from 1st October 2012; licence changes will be made as needed beforehand.

Liquidity

The SEM Committee notes the recent developments in contract liquidity:

- PSO-related CfDs will continue, as confirmed by the RAs in April;
- Regular NDC auctions are being held, including for short-term products; and,
- A new Tullet Prebon “Over the Counter” (TP OTC) trading facility has commenced and may help to assist liquidity, by allowing for suppliers and generators to interact more with respect to contract price and quantities, assisting in price discovery.

The SEM Committee doesn’t consider it appropriate at this time to establish a market maker facility in which a market participant (say ESB) would be required to continuously have a buy/sell facility for contracts at all times (e.g. via an exchange). Similarly the Committee will not proceed with an option of mandating contracts from generators at this time. There could be a significant cost to industry while the demand for such a continuous trading facility is unclear, and it is noted that the majority of respondents to the CEPA paper were against pursuing such options. Liquidty is generally best developing “organically” through industry/market initiatives.

However, there may be a case for proceeding with such an approach in the future, in the context of the integration of SEM into European markets. This is because market-coupling with Europe could involve day-ahead CfDs. The RAs’ Market Integration Project Team will lead this work and any initiatives in this area will be fully consulted on by the RAs at the appropriate time.

In the meantime the RAs will meet interested stakeholders, to assist where possible in developing industry-led solutions to contract liquidity. Any developments here will be referred to in the SEM Committee final decision on market power and liquidity, due by Q1 2012.

DC Offerings

The threshold for the provision of DCs will continue to be at the current 1,150 HHI level for the moment - estimates of DC volumes from horizontal integration are provided above. That said, the SEM Committee will continue to monitor the market and if there is any evidence of market power being exercised and liquidity levels significantly falling, the Committee reserves the right to take further action, including the lowering of the HHI threshold.

Early next year the RAs will consult on the frequency of the DC offerings for 2012/13 (i.e. annual or more regular), in a similar manner to this year, before deciding on the matter.

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 Committee[1], 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 Code[2].

There are inherent features of the SEM design that serve to mitigate the exercise of 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 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.

An explanation of market power, the market power mitigation strategy/measures and contract liquidity in the SEM can be found in a previous RA paper, SEM-10-057, available at the following link.

http://www.allislandproject.org/GetAttachment.aspx?id=e83a335f-8366-416c-a6fe-96a0d54b1721

1.2 Scope of Project

In the 2nd quarter of 2010 the RAs, on behalf of the SEM Committee, commenced a review of market power and contract liquidity in the SEM. The overall aim of this project has been to identify practical ways in which the RAs can further promote competition in the SEM by reducing/mitigating market power and/or improving contract liquidity over the course of the next 10 years. This project included a review of the performance of the SEM market power mitigation measures in the context of experience to date and, looking forward, likely developments over the next 10 years which could alter market power. These developments include increased interconnection and new market participants (including, for example, wind generation).

The project has also examined measures which might be necessary to mitigate any potential adverse effects on market power and/or liquidity resulting from the various components of ESB’s proposed re-integration.

[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.

[2] Please see http://www.allislandproject.org/en/trading_and_settlement_code.aspx

1.3 RAs' State of the Nation

In August 2010 the RAs published a "State of the Nation" paper (SEM-10-057) whose purpose was to:

- Inform market participants of the scope of the review project;

- Provide a factual overview of the design and operation of the SEM, in particular:

  (A) The market power mitigation strategy adopted to date by the RAs; and,
  (B) The operation of the market since the inception of the SEM, including levels of market power in the spot and forward contract markets, as well as forward contract liquidity; and,

- Seek any initial ideas from market participants on the policy issues being examined as part of this review project.

1.4 CEPA Paper

In July 2010 the RAs appointed independent consultants, CEPA, to assist the RAs by undertaking an independent review of market power and liquidity in SEM. Having taken on board the comments received to the RAs' "State of the Nation" paper as well as input from the RAs on factual matters and in relation to market modelling, CEPA undertook an independent review of market power, liquidity and ESB's integration/liquidity proposals. CEPA's report, along with an RA cover paper, was published for public consultation on 16th December 2010 - please see the following link:

http://www.allislandproject.org/en/market_current_consultations.aspx?article=682a98fe-9c18-4c73-8fa3-57e75d24d85e

To explain the CEPA paper and discuss industry views, the RAs held a public workshop in the CER office on 18th January 2011. In brief, the CEPA paper found the following:

- Modelling analysis indicates that, while ESB's RSI levels for 2015 and 2020 would *on average* not be at levels of concern from a market power perspective, there would still be some scenarios/hours where RSI levels are below 1.2, i.e. market power could still be exercised by ESB at certain times. This suggests the need for a market power mitigation strategy into the future.
- The BCoP, MMU and DCs provide substantial protection against the abuse of market power. Given the need for robust market monitoring and bidding principles, BCoP, MMU and DCs should continue for the foreseeable future as market power miitigants.
- The benefits of operational horizontal ring-fencing of ESB generation units are unlikely to outweigh the costs while robust market monitoring and bidding principles remain. It is unclear what additional risks of exploitation of market power horizontal ring-fencing addresses – hence "operational" horizontal integration of ESB generation should be considered.
- Vertical ring-fencing is an important component of measures to restrain market power. ESB's liquidity proposals would only mitigate a power that ESB does not currently hold. CEPA's assessment was that relying on "behavioural" and/or regulatory remedies (e.g. by enhancing the market power mitigation strategy) to allow vertical integration of the ESB Group is unfavourable at this stage as doing so would remove a "structural" remedy.
- The following measures could help to improve contract liquidity:
  - Further interconnection / market coupling;

- The enhancing of market information to help contract formation, e.g. outage planning;
- A market-maker, especially for smaller suppliers, to help new entry;
- The introduction of a mandatory liquidity provision mechanism from generators.

The deadline for comment to this consultation was extended to 22nd March 2011, primarily due to uncertainty regarding the legal basis for PSO-related CfDs, which has since been resolved through the publication of an RA paper in April confirming the availability of PSO-related CfDs (see section 3).

1.5 Purpose of this Paper & Comment Deadline

The SEM Committee has considered the CEPA paper and responses to it, a new "partial vertical integration proposal" from ESB received by the RAs in June and CEPA's review of that proposal submitted to the RAs in September, with the final report in November (see later and appended to this paper). Taking account of its general duties and objectives, the purpose of this SEM Committee draft decision is now to:

- Summarise the key comments received to the CEPA-related consultation paper which closed in March, and provide an RA response to these comments. Please see section 2 of this paper;

- Provide an update on recent developments relevant to the market power and liquidity, project, including in relation to contract liquidity and the new "partial vertical integration" proposal from ESB. Please see section 3 of this paper; and,

- Provide the SEM Committee's view regarding issues raised as part of this project, including in relation to the market power mitigation measures, contract liquidity and the issue of ESB's requests to integrate its businesses. Please see section 4 of this paper for details.

All comments to this draft decision should be sent to the CER's Kevin Hagan, at khagan@cer.ie, by no later than **17:00 on Friday 16th December 2011**. Those respondents who would like certain sections of their response to be confidential should submit the relevant sections in an appendix market "confidential".

A final decision in this area is expected from the SEM Committee in Quarter 1 2012.

2. Summary of Comments

2.1 Respondent Names

There were 14 responses to the CEPA report as below, and they are published with this paper where they were not marked as confidential.

- Chambers Ireland
- Competition Authority
- ISME
- Moyle Interconnector
- SFA
- Synergen
- ESB
- NIE PPB
- NIE ES
- SEMO
- Bord Gáis Energy
- AES
- Endesa Ireland
- Viridian Power and Energy

Taking account of these comments and the latest developments discussed in section 3, section 4 of this paper then provides specific policy proposals for consideration by market participants, covering the areas of market power, contract liquidity and ESB integration.

2.2 Summary of Comments Received

This section summarises the key comments received by topic, followed by an RA response.

2.2.1 Market Power & Mitigation

ESB Divestment / Sale

Some respondents were in favour of the sale/divestment of ESB generation assets as a particular structural approach to tackling market power in the SEM, in addition to the RAs' current market power mitigation measures (discussed later). However some respondents were also against this. The summary of comments in favour of and against ESB sale/divestment is shown next.

In favour

The Competition Authority believes that behavioural remedies to market power only prescribe conduct whereas structural remedies attempt to remove the underlying incentive of the firm to engage in anti-competitive conduct. Hence it believes further consideration should be given to:

- Divestment of some of ESB's generation assets; and
- Full legal and ownership separation of the ESB's generation and transmission assets.

The Authority states that a structural solution involving further divestment of ESB generation assets would reduce the ESB's market share, remove the ability of any generation company to be the predominant price setter and provide room for the BCoP to be relaxed.

Endesa Ireland considers that ESB should be fully privatised but recognises that at this point of time with the economy, the assets would not realise their full value. Further divestment of ESB assets would also encourage competition though it believes that selling ESB assets to another semi-state or splitting ESB into two vertically integrated companies would not enhance competition.

NIE PPB said that divestment of ESB would help to promote competition, so long as the divestment is representative of all plants in the ESB portfolio.

Viridian Power and Energy stated that the market power mitigation strategy objectives are appropriate for today and the future. However the strategy is not a basis for increasing the market power of an already dominant ESB through integration (see later) - any integration would mean the market power mitigation measures would need to be reinforced, constraining the market into the future. It regrets that the issue of ESB integration appears to have hijacked the RA consultation from investigating market power and liquidity issues more generally. It believes it is appropriate to reduce market power by divestment of ESB's generation units. Removal of market power would mean that SEM may be able to evolve into a more competitive market. It said that the previous asset divestment by ESB in return for a new CCGT at Aghada resulted in ESB strengthening rather than reducing market power.

AES stated that appropriate divestment may help improve the competitive position of SEM and possibly facilitate the development of improved liquidity.

Against

Synergen said there is no compelling evidence that divestment/structural changes would help matters.

Bord Gáis Energy and NIE ES also cautioned against divestment of ESB, at least at this time, referring to how it could actually reduce liquidity in the market, with NIE ES saying that this could create a situation where only vertically integrated businesses are sustainable.

RA Response

The RAs consider that the sale of certain ESB generation units would provide market power benefits. However, the issue of the sale or divestment of ESB generator units is outside of the RAs direct control or remit and is instead primarily a matter for ESB and its shareholder, the Irish State.

The RAs reject any notion that the ESB integration issue "hijacked" this workstream. ESB's integration request was clearly part of the scope of the project from the very beginning, and is very relevant to both market power and the provision of contract liquidity given ESB's size in the market. Furthermore, in providing policy proposals in this area the CEPA paper detailed various scenarios for market power and liquidity, including one with no change to ESB ring-fencing.

Comments on the market power mitigation measures are responded to next.

Market Power Mitigation Measures

Aside from the ESB ring-fencing/integration issue (discussed later), there was no widespread call for the weakening of market power mitigation measures such as DCs or BCoP, though two respondents (Synergen and Endesa) did say they could be relaxed in some scenarios. Speaking generally, many respondents believe that the current RA market power mitigation strategy is appropriate. The high-level market power comments are below, followed by the specifics on BCoP/MMU, DCs and ESB ring-fencing/integration.

AES and Endesa Ireland believe that the established objectives and criteria for the RAs' market power mitigation strategy are fit for purpose in SEM, though Endesa Ireland believes that in the medium to long-run the measures should be relaxed and removed (see later).

NIE ES supports the market power mitigation measures implemented by the RAs, believing that BCOP, MMU and DCs are most important.

ESB welcomed CEPA's conclusion that the SEM wholesale market and market power mitigation measures are working well. It believes that the fact that there is strong competition in the retail market which, together with generation investments, indicates that concerns over market power and liquidity tend to be overstated. With BCOP and MMU, ESB has no capability to exercise market power. ESB said that it is important to be clear that with DCs amounting to 8% of the total generation market over the last 3 years, its effective market share is below 40%. This should be recognised.

SEMO stated that proactive and robust market monitoring is important to the SEM and SEMO would be happy to play a role in this.

Synergen referred to how the lack of abuse of market power to date should provide some confidence that the existing market power mitigation measures do not need to be strengthened. It said that some of the existing mitigation measures could be relaxed – notably Synergen's legacy ring-fencing arrangements. It is Synergen's view that some of the market mitigation measures should be relaxed under Option A and not increased under Options B and C (see CEPA's paper). Given Grid Code requirements and the capacity payment mechanism, Synergen does not take the CEPA view that "unless concentration in generation declines through structural change, intervention through the BCoP and DCs will still be appropriate", although it agrees with the conclusions section that "it is therefore likely that there will be an ongoing need for robust market monitoring and bidding principles".

Bord Gáis Energy is of the view that although ESB may not be found to exercise its market power potential at this time, it is important for SEM that this potential is minimised as opposed to simply addressed ex-post. It believes that the conclusions in the consultation paper do not fully consider recent market developments and characteristics of SEM, namely the portfolio advantage held by ESB, the impact of the likely termination of PSO backed CfDs, the deregulation of the ESB's supply businesses, recent NDC pricing and premiums, and the components of the SMP which need to be hedged by suppliers (it says uplift is a considerable proportion of the SMP and therefore fuel hedges would not provide adequate risk management measures for suppliers seeking to compete in the retail market). Hence BG Energy does not believe that the conclusions fully reflect the full potential of ESB's ability to abuse its position to the detriment of competition.

RA Response

The RAs welcome the fact that the Market Power Mitigation Strategy appears to be meeting its objectives, which are primarily to prevent market power abuse and to maintain efficient incentives for market entry/exit through correct market signals. There has been no evidence *of significant market power being exercised in the spot market to date and the BCoP, MMU and DCs have helped ensure that generator bids are at competitive SRMC levels. This has resulted in SEM wholesale prices (SMP) that are efficient, providing proper market signals.*

The spot market continues to be quite concentrated while, looking forward, CEPA's RSI modelling analysis for 2015 and 2020 indicates that a market power mitigation strategy will continue to be required for the foreseeable future, in order to protect the end customer from the potential abuse of market power.

In view of the above to the SEM Committee will maintain BCoP/MMU and DCs as market power mitigants for the foreseeable future, at least until the spot market becomes more competitive. This is discussed in more detail in section 4.

As discussed later, a legal review found that PSO-related CfDs can continue to be offered.

Specific Comments on BCoP/ MMU

Moving beyond general comments on the RAs' market power mitigation measures, NIE PPB and Bord Gáis Energy believe that BCoP provides a good mechanism for managing market power. However Bord Gáis Energy noted that it is only effective if noticed by the MMU or brought to the MMU's attention. In this vein, Synergen, AES, NIE ES and NIE PPB referred to how they would like to see the MMU well resourced and/or more pro-active and/or more transparent (e.g. queries raised with the MMU could be published).

Synergen stated that the BCoP should remain for the time being but with specific sunset criteria related to concentration measures and an emphasis on principles rather than rules. It does not believe that a stricter bidding regime should apply to a horizontally integrated ESB or to any other SEM generation business. Endesa Ireland also believes that BCoP should be relaxed for independent players in the medium run and for incumbents in the long run as strict bidding principles may be stifling innovative biding and the full benefits of competition.

RA Response

As discussed in section 4, BCoP/MMU have effectively ensured that generator bids in SEM are at Short Run Marginal Cost (SRMC) levels, i.e. the generator bids and SMP are at efficient levels, with no significant exercise of market power. Given the significant concentration levels in the spot market, the SEM Committee will continue with BCoP/MMU, so as to help ensure that this continues. If, however, the spot market becomes significantly less concentrated in the future, then the Committee would review the continuation of BCoP.

The comments regarding the resourcing and transparency of MMU are noted. A Decision paper will be published soon which will clarify the governance processes of the MMU.

Specific Comments on DCs

DC Policy

The following comments were made on the specifics of DCs, in addition to the general support expressed by market participants for the market power mitigation measures, mentioned earlier.

NI ES views DCs as essential. Endesa Ireland believes that DCs should continue to be unbiased and independent in their price setting. They should not be offered via auction as this would impact on the prices. However BG Energy believes that the optimal solution for the market would be the provision of market-based contracts which do not need direct regulatory intervention.

Synergen stated that, given the experience of the market to date, it may be time to discontinue the “belt and braces” approach to market power mitigation and therefore discontinue DCs.

Endesa Ireland proposes that suppliers that are part vertically integrated should only be eligible on the proportion of their demand that is not able to be hedged internally by their generation. It also proposed that provision should be made for new entrants to the market whereby eligibility for suppliers could be based on their projected market share (if not materialised at the start of the tariff year the DCs could be re-offered to the market). Finally it says the ESB credit cover arrangements for CfDs generally are too high and should also be examined.

DC Products

Endesa Ireland would also like to see more short-term contracts to facilitate customer switching and interconnector trading. It would specifically like to see auctions for trading aligned with EFA trading blocks on a monthly/quarterly basis so as to enable hedging for interconnector traders.

Many respondents referred to a desire to see more regularly offered DCs (e.g. close to the trading day) and/or more diverse products (e.g. short-term and a mid-merit 2 product) including NIE PPB, NIE ES, BG Energy, Viridian and AES. NI ES would also welcome the volume increasing and BG Energy would like to see the products being more tradable.

Market Share Measure

There was a mixed view on whether HHI or RSI should be adopted as a market share measure for DCs, with 5 parties fairly neutral on the matter.

AES said that there is merit with continuing to use HHI in the short term. Synergen, NIE ES and BG Energy refer to how either HHI or RSI have merits/disadvantages and/or are susceptible to the threshold values adopted. Similarly NIE PPB says the RSI/HHI debate is overshadowed by other factors which impact on the ability to exert market power such as change in energy prices, availability of capacity and the volume of wind generation. Endesa Ireland is also neutral as to HHI or RSI. In assessing market share it says that metered generation rather than installed capacity should be measured.

In contrast the Competition Authority stated that there appears to be merits in using RSI in determining DCs as it appear to be a more effective indicator of when market power is a problem than the HHI. The continuous scale of the RSI has the advantage of indicating the growing threat from a generator to exercise market power even at times when it is nearly, but not quite pivotal. However a concern with a switch to the RSI relates to how an intermittent source such as wind energy is accounted for in the calculation of the available capacity of other generators as in this case the RSI may overestimate the ability of other generators to meet demand.

Viridian also said that RSI is a more appropriate measure of market power in electricity markets than HHI. It states that both the current practice on DC volume calculation and the CEPA analysis on market shares are flawed because they take a simple average rather than a load-weighted approach.

RA Response

DCs will continue as a market power mitigation mechanism and, in order to ensure their effectiveness in this regard, their prices, quantities and eligibilities will be set by the RAs. ESB credit cover arrangements will be considered separately as part of the process for the annual determination of DCs, which will commence early next year.

Regarding the issue of short-term and/or diverse DC products, it should be noted that the primary purpose of DCs is as a market power mitigation mechanism rather than as a liquidity measure per se. That said, from a liquidity perspective, the RAs consider that the current annual offering of DCs now work well from a liquidity perspective. This is because since the CEPA paper was published, the continuation of PSO-related CfDs has been confirmed by the RAs (see SEM-11-020 published on 13th April 2011, and a follow-up paper in August, SEM-11-061). The PSO-related CfDs are being offered quarterly, as monthly products for the following quarter. Hence the longer-term (annual) offering of DCs compliments the mixed offerings of NDCs and short-term offerings of PSO-related CfDs. This gives suppliers a good mix of short-term and longer-term products, helping them to manage their business efficiently. However, the RAs will consult early next year on the frequency of DC offerings (annual or more regular) for the next contract year (2012/13), talking account of the DC policy in this paper.

DCs will remain to be based on HHI as there is no compelling reason to adopt RSI. The key issue here is the actual threshold applied to derive DCs, and this is discussed in more detail in section 4.

<u>Specific Comments on ESB Integration</u>

Some parties were in favour of the removal of (horizontal and/or vertical) ring-fencing and the integration of ESB while more were against, as summarised below.

In Favour

Chambers Ireland stated that ESB re-integration has merit for efficiency reasons, for competition and for reducing the risk of price spikes. However this is subject to the caveat that robust protocols are established to provide liquidity and mitigate price spikes. Similarly ISME and SFA argued that full ESB re-integration should be allowed as this can assist competition and reduce end prices for customers. Given that ESB is the “price to beat” in the market, if ESB can reduce its costs and prices through integration, this will put pressure on other suppliers to lower their customer prices too.

Synergen stated that its business must be operated completely independently from ESBI’s independent generation businesses as well as from the regulated ESB businesses. CEPA’s option A did not recognise this - Dublin Bay Power is treated as part of ESBI despite being strictly ring-fenced from ESBI. Synergen views this ring-fencing as excessive. Option A in the CEPA paper should include the removal of Synergen’s ring-fencing licence conditions which would allow it to be integrated with ESBI.

Synergen believes that the case for removing ESB horizontal ring-fencing is similar to removing vertical ring-fencing. Synergen sees no reason why its integration with the rest of its parent company would have an adverse impact on competition in generation or on customers.

ESB referred to how, without market power in the generation and contracts markets (due to the BCOP, MMU and DCs) and the retail market, it is impossible for it to leverage supply chain market power from the removal of vertical ring-fencing. It takes issue with CEPA’s claim that vertical ring-fencing can address concerns about a lack of contract liquidity due to the presence of market power. This is given that CEPA has given no evidence of market power in contracts, there is strong retail competition and ESB has offered a liquidity proposal in a vertically integrated scenario. Therefore, ESB strongly disagrees with CEPA's conclusion that it would be prudent not to implement ESB vertical integration in the near term. ESB believes that the CEPA paper does not appear to have considered the "interests of the consumers of electricity…", nor has it considered "the need to secure that authorised persons are able to finance the activities", both of which should be considered by the SEM Committee before making a decision in this area. ESB Customer Supply has posted operational losses of €32m in 2010. ESB is of the view that, absent the removal of vertical ring-fencing, losses in its supply business are likely to continue, raising concerns over the financing of these activities.

Whilst ESB hopes that the SEM Committee will grant the removal of vertical ring fencing immediately, it would be unreasonable to refuse this immediate request without setting out the timescale for the removal of vertical ring-fencing in advance of the commissioning of the East-West interconnector. ESB supports CEPA's view that horizontal ringfencing should be removed.

Against

The Competition Authority stated that horizontal generation integration or vertical integration would give rise to competition concerns. They are of the opinion that this would likely be exacerbated if the ESB was to retain its ownership of the electricity transmission network. There are a number of developments taking place in the Irish electricity sector which will have a significant effect on competition in the coming years such as further interconnection, the removal of regulated tariffs for domestic electricity customers and the possible sale of State assets. It is important these issues are resolved before any re-integration of ESB is considered.

NIE PPB believes that existing ESB ring-fencing arrangements are effective - ESB should not re-integrate horizontally or vertically as this would increase market concentration and have a detrimental impact on market power in the contracts market. This in turn will act as a disincentive to invest.

Bord Gáis Energy strongly believes that the options to vertically integrate any part of the ESB's business units will severely adversely affect competition and the credibility of the market. Despite the proposals provided by ESB PG, Bord Gáis Energy firmly believes that any form of vertical reintegration at this time will stymie the development of liquidity/forward market contracting and will revert a level of market power to the incumbent who would then be in a position to use that power to affect competition and prices in both the wholesale and retail markets. Allowing ESB to vertically integrate at this time would remove transparency from the market in terms of how ESB Customer Supply hedges its customer portfolio. Yet, as the single biggest provider of hedge contracts in the market, ESB would have first hand data on the volume and price of hedge contracts held by its direct competitors. This would remove any level of transparency or equity in the market. The interests of customers and competition are better protected if the exercise of market power can be prevented as opposed to addressed afterwards.

NIE ES said that it would be difficult to envisage how vertical integration of ESB could assist the market even with ESB's liquidity undertaking. It would not like horizontal or vertical integration at this time in any event. If ESB is vertically integrated or if PSO CfDs disappear, it would like to pseudo-integrate with NIE PPB to facilitate internal hedging.

Endesa Ireland is of the view that an integrated ESB could have a negative impact on contract liquidity and retail competition. An integrated ESB would also have an unfair advantage in that it has historic data on most customers in the island. If the RAs were to allow further integration, appropriate regulatory measures will need to be put in place to maintain liquidity including requiring ESB to enter into CfDs to a certain % of its market share with the price approved by the CER, as well as requiring a certain % of ESB contracts to be sold to independents. In this scenario ESB's bids into the pool should also be reviewed ex ante by the MMU.

AES remarked that CEPA's detailed analysis and report clearly indicates that ESB's reintegration proposal has a substantial negative impact on competition both in terms of market concentration and the RSI metrics. It also notes from CEPA's analysis that it is likely to have a substantial detrimental impact on contract liquidity. AES believes that complete reintegration is contrary to the aims and objectives of the market power and liquidity review project. It believes that ESB's liquidity proposal, while helpful, highlights the fundamental issues with reintegration. It shares CEPA's view that it merely serves to mitigate a power that ESB does not currently have due to the ring fencing obligations. If ESB were reintegrated they would have even more market power as both a buyer and seller (including access to information) and it is not clear how their liquidity undertaking would work in relation to transparently setting volume, prices, forecast demand etc. There is the very real danger that a single entity will be aware of many other participants' commercial position. AES is also concerned that if full reintegration of a state owned incumbent such as ESB Group was to be approved by RAs, then this could undermine external investor confidence in the market.

Viridian is against horizontal or vertical integration of ESB. It believes consideration of such proposals is premature. It regrets that the issue of integration of ESB appears to have hijacked the RA investigation of market power and liquidity. It is appropriate not to increase market power but instead seek to reduce it through effective divestment of ESB's generation units.

RA Response

The RAs acknowledge that there is a cost for ESB associated with the ring-fencing of its business units. However this cost must be balanced against the cost and risks to the customer, in terms of potential market power abuse, of no ring-fencing being in place.

It is considered that the risks of allowing ESB generator horizontal integration are limited and may be outweighed by the efficiency benefits it would provide (as referred to in CEPA's paper), especially with BCoP in pace to help ensure that all generator bids are at appropriate levels.

However there would be a particular risk associated with removing ESB's vertical ring-fencing, and CEPA stated that it would be prudent not to implement vertical integration in the near-term as it might damage competition. For example, in a fully integrated model, the fear is that ESB PG could deliver below-cost contracts to Electric Ireland and above-cost contracts to other suppliers (without the RAs being aware of it). This exercise of contract market power by ESB could be dramatically disruptive to other suppliers and retail competition.). There could also be informational advantages which would benefit Electric Ireland and distort the market. Furthermore, there would likely be a reduction in contract liquidity compared to present levels, even under ESB's full "liquidity undertaking" (see section 4).

For these reasons the RAs are allowing "horizontal integration" but not "vertical integration" of ESB. Further details and information is provided in section 4.

Specific Comments on the EPO / Supply Ring-Fencing

The majority of respondents were of the view that the removal of the EPO would not impact negatively on the SEM spot or contract markets. For those against the removal of the EPO, no one offered an alternative replacement. There was a mixed reaction on the removal of ESB supply ring-fencing.

ESB believes that the removal of the EPO can have a positive impact on the development of the contracts market. It believes that in practice, the EPO forced ESB Customer Supply to buy a high level of hedges in a mechanistic fashion, preventing suppliers from influencing the development of a contracts market through creation of products that more naturally fit the market's requirements. ESB says the removal of separation between ESB Customer Supply and ESBIE will have a very marginal impact on the contracts market as ESBIE has historically managed its market exposure using an integrated generation and supply business model where its risks are optimised with ESB Independent Generation. The ESB Customer Supply requirement for hedging products for its customer demand is largely unchanged.

AES said that there may be some merit in removing the EPO so long as there is demonstrable effective and efficient competition to ensure that ESB and NIE supply activities seek to contract on a basis which ensures they offer best value to customers. NIE Energy Supply said that the removal of EPO has no detrimental effect and does not see a need to replace it. Synergen likewise stated that there was "no evidence of the spot or contract markets being distorted by the removal of the EPO for business customers and the removal of the ring fence between ESBCS and ESBIE".

Bord Gáis Energy agreed that the removal of EPO conditions should not affect the contract or spot markets, provided that the previously regulated incumbents are required to purchase their energy and hedge contracts in the market on a transparent and non-discriminatory basis. However, if the ESB was to be vertically reintegrated, this market and its transparency would be dissolved and the incumbent would have a significant competitive advantage over other market participants (see earlier).

The Competition Authority referred to how regulators should implement market monitoring that is not "confined to changes in market shares but also include monitoring of patterns of consumer behaviour."

NIE PPB believes that the removal of the ring-fencing between ESB CS and ESBIE will increase the concentration of participants in the contracts market. For example if a large number of customers were to switch to ESB it is likely that ESB would be the only party willing to buy the derivatives with respect to these customers. ESB could exert market power and corner the supply market. However in relation to the removal of the EPO it says that it is unlikely to materially impact on SEM.

Endesa Ireland believes that the EPO removal for ESB CS for business customers and similar removal for NIE ES, together with removal of ESB supply ring-fencing, could mean ESB has a reduced motivation to become a counterparty to a CfD as it has the benefit of internal hedging. Endesa Ireland proposes that the price of the CfDs to be offered by ESB should be approved by the RAs as otherwise these contracts could be priced out of the market. It is Endesa Ireland's view that the EPO should not have been removed as any sensible commercial operator would seek best value in its purchases. For the removal of the EPO for domestic customers, it also believes that ESB should be required to enter into CfDs for a certain portion of its market share, with the price approved by the RAs.

Viridian stated that the removal of the EPO in the RoI retail market as part of the wider deregulation of the market was premature, inconsistent with broader competition policy and potentially damaging to feasible long-term competition in the market, the first signs of which were only emerging prior to the CER's decision to deregulate the market. Removal of the EPO in RoI leaves a gap that must be filled through greater reliance on the remaining pillars of the strategy, pillars that are considered now to be even more important to achieving the stated objectives. However it has not seen any adverse impacts on competition and liquidity to date.

RA Response

Due to the strong level of retail competition and to assist it further for the long-run, the CER de-regulated the retail market and removed ESB's EPO for all customer segments of the retail market by April 2011. ESB PES and ESBIE have integrated under the rebranded name of Electric Ireland (re-branding was required for domestic de-regulation).

The RAs note that the majority of respondents were of the view that removal of the EPO would not impact negatively on the SEM spot or contracts markets. Strong retail competition in Ireland prevents Electric Ireland raising its retail prices above competitive levels by "over-paying for contracts" from ESB PG, with the aim of enhancing group profits, as it would risk losing retail market share. In other words Electric Ireland would not be able to pass elevated contracts prices from ESB PG through to customers as it would lose customers to other suppliers. Hence the CER does not currently have a concern that, absent the EPO, Electric Ireland can exercise contract market power from the retail market to enhance its profits, mainly because of strong retail competition.

2.2.2 Contract Liquidity

In this section respondents' general comments on contract liquidity are summarised, before focusing on specific comments in relation to ESB's liquidity undertaking and then the specific comments in relation to CEPA's liquidity proposals.

General

The Competition Authority referred to how the availability of a liquid contracting market is essential for electricity suppliers so that they can match supply with customer demand.

AES said that the lack of contract liquidity in terms of players and short term products hinders its appetite and ability to offer contracts given the current SEM design and market structure. However AES welcomes ESBs proposals for an "Over the Counter" brokered market for SEM CfDs and would be keen to work with ESB and other participants to take this work stream forward. NIE PPB said that ESB's liquidity proposal, while welcome, would not address the increase in market power arising from integration.

Bord Gáis Energy stated that uplift is becoming an increasingly large proportion of the SMP and therefore fuel hedges will not adequately allow a supplier to hedge its wholesale market risks. In order to hedge uplift, a supplier must either have a portfolio of physical generation in the market or hold CfDs with generators running in the market.

Bord Gáis Energy would welcome a platform which would allow parties to trade their hedge positions out on an ongoing basis. This could provide good short-term liquidity to the market and again would allow all parties to actively trade their positions as they change. It said that generator participants in the market have been engaging collaboratively in an attempt to spark greater liquidity through the provision of a flexible platform which would be accessible to all market participants. To progress this initiative further and to drive the debate and development in a timely manner, it may be opportune at this time for a regulatory-led, market-wide working group to be established. Such working groups, which have been established as part of the Modification Committee structure, have proven useful of late in achieving solutions for the market which are acceptable to all market participants. Viridian also encouraged the RAs to further engage with industry, perhaps through a series of working groups, to develop a strategy to address liquidity.

NIE ES said the lack of contract liquidity in SEM is a real concern to them. Increased exposure to fluctuating fuel prices would manifest in higher costs borne by customers and will make certain businesses untenable. It believes that the current market already suffers from contract scarcity, pushing up NDC prices and ultimately customer prices.

RA Response

The RAs welcome the new Tullet Prebon "Over the Counter (OTC)" facility that has recently developed for the trade of certain ESB NDCs, and would be keen to see this develop further, with industry participation. This is a potentially significant addition to the provision of liquidity in the SEM, giving suppliers the opportunity to interact more in price/quantity formation. Further details on this are provided in section 3.

Furthermore, the RAs note that PSO-related CfDs and NDCs are being offered regularly to market participants, giving suppliers a good mix of short-term and long-term offerings. Further information is also available in section 3.

The RAs consider liquidity developments best happening "organically" through industry/market initiatives rather than being mandated by the RAs. The RAs will meet interested stakeholders to assist where possible in developing industry-led solutions to contract liquidity - stakeholders have been involved in discussions on the development of the new OTC facility and the RAs are keen that such industry involvement continues.

More generally, the RAs' Market Integration Project Team will shortly consider options which may involve a day-ahead market in SEM. If developed, this could facilitate more liquidity and assist with market integration. Any initiatives in this area will be fully consulted on by the RAs at the appropriate time.

ESB Liquidity Undertaking

Bord Gáis Energy believe that the liquidity proposals outlined by ESB will not address the structural issues that exist which, absent regulatory intervention, inhibit the development of effective liquidity in the SEM. Firstly, it will not provide transparency to the market as to what volumes will be provided on an ongoing basis and when they will be provided. More importantly ESBs proposals do not outline the pricing mechanism that will be used.

Endesa was not satisfied with ESB's sunsetting liquidity proposal. It proposed that when the thresholds listed in the ESB proposal are met the RAs should review whether the requirements should be stood down, and should consult on that issue. It considers that the quantum of contracts to be offered by ESB PG and bought by ESB Retail should be based on ESB group's (not ESB PG's or ESB CS's), combined share of metered generation / customer demand, as opposed to installed capacity, or demand.

Given the ESB propose to only offer liquidity commitments in return for vertical and horizontal reintegration, Viridian do not consider it appropriate to consider these proposals in light of its view that such reintegration should be firmly opposed. Proposals to address liquidity should not be the product of an apparent horse-trade between the dominant firm in the SEM and the RAs in return for even greater degree of market power. In future liquidity proposals should be subject to consultation in early stages of development with any resulting developments being RA-led. It may therefore be useful to take the ESB proposal as a starting point or as one of a number of options for addressing this issue, absent any further consideration of reintegration proposals.

ESB is pleased that CEPA recognises the impact and importance of ESB's liquidity undertaking.

RA Response

Even with ESB's liquidly undertaking, full vertical integration of ESB would result in a reduction in contract liquidity compared to present levels (see section 4). More broadly, with vertical integration there would be a concern of contract market power being exercised and there could also be other informational advantages which could distort the market and negatively impact on competition (see earlier). It would also involve replacing a structural remedy (ring-fencing) with a behvioural or regulatory one, which would be more difficult to implement. Hence, as discussed in section 4, the RAs propose not to allow vertical integration and therefore won't be proceeding with the liquidity undertaking.

Transparency Measures

Synergen stated that more market information may help contract liquidity. NIE ES also agreed that an RA-led transparency programme would assist in contract formation. Somewhat contrasting with this, Endesa Ireland does not believe that it is necessary to provide additional information on outages to the market.

RA Response

As stated in relation to MMU process a Decision paper will be published shortly. In addition, the RAs will continue to work with both the system operators and generators to help create a more transparent environment, including issues such as transmission outages and constraint generation.

Mandating Contracts / Market Maker

Most respondents who commented in this area were against the idea of a mandatory/regulated offering of contracts from market participants.

Synergen does not support mandated contracts on market participants or a market-maker option as it would be an infringement on commercial freedom and contrary to the long term development of trading through the evolution of secondary trades. Synergen believes that mandating contracting (in principle) should only apply to parties with market power – and undertakings to contract are preferable in terms of engendering liquidity than mechanisms such as DCs.

Bord Gáis Energy also does not believe that it would be appropriate to mandate contracts in the SEM. Firstly, no other generator in the market holds a portfolio similar to the ESB, which it claims has a monopoly holding of mid-merit and peaking plant. Therefore mandating other generators to provide contracts would only increase the number of baseload contracts offered. Given that suppliers need mid-merit and peaking contracts to manage customer portfolios effectively, such an initiative would do little to improve upon the current provisions for suppliers. Also, and as a result of the central dispatch nature of the SEM and increasing levels of intermittent generation, generators cannot forecast their running schedule or whether they will actually be in merit. Therefore, they cannot commit to offer hedge contract volumes or if they were to it would be an open-ended risk if they were not in the merit order. ESB, with their portfolio of fuel and plant type, can to a greater extent reasonably expect to be in merit and therefore are in a better position to forecast available volumes. This makes the ESB the only viable generator in providing the market maker function. ESB would not be incentivised to tender for such a role if it was vertically reintegrated as its generation and supply businesses would seek to hedge internally as opposed to on a transparent and non-discriminatory market platform.

AES said “mandating all generators to offer contracts and/or to become market makers” would not be welcomed, and asked how this would work within the current SEM design and industry structure, and how would the risk exposure for lower merit order/peaking generators (e.g. the liabilities/losses associated with being over contracted) be mitigated.

Endesa Ireland does not agree with requiring all generators to offer contracts and/or become market makers. If they are required to do so, they should be free to set their own prices and if the RAs do set the prices, there should be a mechanism whereby generators are entitled to recover any losses from this approach.

Viridian said that mandating all generators to provide liquidity would fundamentally alter the investment case in the SEM. The most plausible investment case in the SEM is a vertically integrated model. Mandating such new entrants to provide a proportion of their generation in the form of contracts would restrict their ability to effect viable entry into the market and would likely introduce a degree of inefficiency. Viridian said that the market maker proposal is interesting but in the context of the SEM, would have academic as opposed to practical appeal. The relative degree of illiquidity would likely result in large spreads on trades in the market and may restrict as opposed to improve liquidity in the market. However mandating the role of market maker on the dominant firm with limited/restricted spreads may be a possible option in this regard and may be able to be incorporated into the market power mitigation strategy as a deliberate, combined approach to addressing market power and liquidity in the SEM. On product type/availability, Viridian would like to see more mid-merit 2 product and weekday/weekend products with rolling offerings.

Only two parties actively welcomed the possibility of mandated contracts/market maker. One was NIE ES, which said the idea was worthy of consideration, though it would like more detail. Moyle Interconnector Limited stated that the unavailability of hedging contracts for interconnector users is acting as a barrier to trading across Moyle which could lead to under-utilisation of the East-West interconnection in the future. It believes that it is not in the interests of major SEM players to significantly increase the level of hedging opportunities available (to interconnector users) as increased competition and/or imports from interconnection would be detrimental to their generation portfolios. Hence it believes that the RAs should intervene in the market in order to crystallise the benefits to consumers (i.e. lower prices) that interconnection can deliver, by requiring that:

- SEM’s vertically integrated players should be required to contract a portion of their output externally;
- An EPO should be placed on all vertically integrated players. A supply division can contract with its associated generation portfolio but if it is subsequently found that cheaper sellers were available then they may be penalised
- SEMO could offer a certain amount of hedging contracts to both the buy and sell sides of the market.

RA Response

The RAs don't consider it appropriate at this time to establish a market maker facility in which a market participant (say ESB) would be required to continuously have a buy/sell facility for contracts at all times (e.g. via an exchange). Similarly the RAs are not minded to proceed with an option of mandating contracts from generators at this time. There could be a significant cost to industry from requiring a market maker or mandating contracts form generators at this time, while the demand for such a continuous trading facility is unclear. The RAs consider liquidity developments best happening "organically" through industry/market initiatives rather than being mandated by the RAs. In any event, the new OTC trading facility (referred to above) is at least a move in that direction.

However, there may be a case for proceeding with such an approach in the future, in the context of the integration of SEM into European markets. This is because market-coupling with Europe could involve day-ahead CfDs. The RAs' Market Integration Project Team will lead this work and any developments here be fully consulted on by the RAs at the appropriate time.

In the meantime the RAs will meet interested stakeholders to assist where possible in developing industry-led solutions to contract liquidity. Any developments here will be referred to in the SEM Committee decision on market power and liquidity, due by Q1 2012.

Liquidity / PSO CfDs

There was a significant concern expressed by many market participants about the potential removal of Public Service Obligation (PSO) CfDs, expressed by AES, NIE ES, Endesa Ireland and ESB. It was pointed out that if PSO CfDs are not made available liquidity within SEM will reduce significantly, exposing suppliers to more risks. NIE ES similarly also said that it would be fundamentally negative for suppliers and customers and such is their importance that if they were removed, NIE ES would support replacement regulatory mandated contracts.

Viridian regrets the doubt over the availability of PSO CfDs and that this was only presented to market participants through what it called "a series of veiled references".

RA Response

In April 2011 the RAs confirmed that, following legal review, Irish PSO-related CfDs can continue to be offered (see SEM-11-020). Therefore contract liquidly volumes have not fallen dramatically due to a discontinuation of PSO-related CfDs as was feared by some market participants. Please see section 3 for details.

Liquidity / Interconnector

Many participants referred to how interconnection with Great Britain should help liquidity, competition and/or mitigate price spikes in SEM, including Chambers Ireland, NIE ES, NIE PPB, AES, the Competition Authority and Endesa Ireland.

The Competition Authority and Endesa Ireland noted that to take advantage of these benefits the current uncertainty about how imported capacity between SEM and BETTA is treated needs to be clarified ahead of the East-West interconnector going live. Bord Gáis Energy referred to how the interconnector will only provide liquidity for as long as SEM prices are higher than GB market prices and there is the ability to access the capacity at a reasonable price.

Moyle Interconnector Limited's comments in this area are provided above. It also questioned CEPA's conclusion that 50% of Moyle flows are uneconomic and that this is related to arrangements for accessing capacity. It sees an incompatibility between SEM and BETTA being more likely because of uneconomic flows, i.e. due to ex-post price determination in SEM.

AES noted that the current DECC consultation on Electricity Market Reform and HM Treasury's proposals for a carbon price floor mean that the impact on competition and liquidity within SEM is difficult to assess at this point.

Viridian stated that while interconnection may help liquidity and competition on the SEM, it is not considered appropriate at this stage to envision the Irish market as being seamlessly part of a wider market with Great Britain (and beyond) over the medium term because, absent market and trading rules in relation to market integration and possible new interconnectors, the impact of increased interconnection is somewhat muted. Hence at this stage it is inappropriate to accept that increased interconnection and market integration will dilute ESB's dominant position to one of a small player in a larger market.

RA Response

The access rules for booking capacity on the East-West (as well as Moyle) interconnector have recently been published by the RAs, so there is no uncertainty in relation to this matter. Please see the following link:

http://www.allislandproject.org/en/TS_Current_Consultations.aspx?article=45fe6382-07cb-4b4e-ac1a-34bce415720e&mode=author

Broader issues in relation to the compatibility between SEM and BETTA are being followed-up by the Market Integration Project Team, to help ensure efficient use of the interconnectors. The RAs agree that there is the potential for interconnection to increase contract liquidity and this will also be examined in the context of the Market Integration workstream.

Regarding load flows on the Moyle interconnector, CEPA's report stated that:

It is notable that the flows across the interconnector appears to have been economic only around 50% of the time, thus suggesting that electricity frequently flows in the opposite direction compared to what would be expected given market prices. This is likely to be due to imperfections either in the capacity allocation mechanism for the interconnector, orcompatibility of the GB and SEM markets (particularly the ex post price determination on the SEM)." Hence CEPA stated that SEM/BETTA compatibility issues could be a reason for the flows observed. As stated above the Market Integration Project Team is working to help ensure efficient use of interconnectors.

The CEPA analysis assumed no more interconnectors in place (beyond the East-West Interconnector due for operation later next year) between now and 2020, so it did not assume in its modelling analysis that SEM is seamlessly part of a wider market in the medium term.

Liquidity / Wind

NIE PPB and NIE ES said that wind may reduce the amount of contracts on offer as volume risk cannot be managed by generators. Bord Gáis Energy and AES on the other hand said that it is difficult at this stage to fully appreciate the impact that wind generation/interconnector will have in SEM.

Viridian Power considers that wind has the likelihood of further decoupling the link between SMP and fuel prices in the SEM, thus placing greater importance on the need for enhanced market liquidity as this would effectively increase the demand for forward electricity contracts and render imperfect hedges (e.g. fuel hedges) less effective. To the extent that future developments are likely to increase the demand for enhanced liquidity, the need for timely, targeted and effective action becomes an imperative.

RA Response

CEPA's own analysis included in the paper last December found that fuel hedges are of benefit for suppliers for short-term hedging, say for a one month duration, but they are of perhaps less benefit for the longer-term. The RAs agree that at this stage it is difficult to be certain of the impact of wind on contract liquidity levels, and will monitor this into the future.

Other Issues

Viridian said it is considered appropriate for a further consultation paper on this whole policy area to be published calling for industry comments on the RAs views. Such a move would increase transparency and minimise potential issues of regulatory risk for the market.

RA Response

Further public consultation is being provided for via this draft decision. All comments to this proposed decision should be sent to the CER's Kevin Hagan, at khagan@cer.ie, by no later than 17:00 on Friday 16th December 2011.

Talking on board responses to this paper, a final decision is expected from the SEM Committee in the first quarter of 2012.

3. Latest Developments

This section details, for information, developments related to the RAs' market power and liquidity project that have occurred since the CEPA-related consultation closed in March 2011. All of these developments are taken account of in the policy proposals provided in section 4 of this paper.

3.1 Liquidity Developments

Continuation of PSO-related CfDs

In April 2011 the RAs confirmed that, following legal review, Irish PSO-related CfDs can continue to be offered. As a result ESB are offering 3.6 TWh of Irish PSO-related CfDs across the year from 1st October 2011 to end September 2012. Therefore contract liquidly volumes have not fallen dramatically due to a discontinuation of PSO-related CfDs as was feared by some market participants.

The PSO-related CfDs are offered as a mix of baseload, mid-merit 1 and mid-merit 2 products. Furthermore, the PSO-related CfDs are being offered quarterly, as monthly products for the following quarter. From a liquidity perspective, the regular short-term offerings of PSO-related CfDs compliments well the mixed offerings of NDCs and the longer-term (annual) offering of DCs. This gives suppliers a good mix of short-term and longer-term products, helping them to manage their business efficiently.

Further details on the PSO-related CfDs are available in SEM-11-020 at the following link:

http://www.allislandproject.org/en/market_decision_documents.aspx?article=743d1a96-dc25-4981-8df5-63affcb7cb70

New NDC Auction Platform

NDC offerings in the SEM commenced with annual rounds of NDC auctions carried out by manual faxed-based process. In 2009 the annual NDC auctions progressed to the Tullett Prebon Multilateral Trading Facility. Since late 2009, within-year NDC auctions have also been held over this facility.

Following testing carried out by Tullett Prebon and market participants, an "Over the Counter" (OTC) Brokered Market went live on the Tullett Prebon on 30th June 2011. Three parties were active during this first window, while several other parties logged in to watch events on the OTC screen during the trading window. Two trades were transacted during this first trading window, with ESB PG selling NDCs on both occasions. It is expected that this facility will develop with increased counterparty interest and volumes traded.

The commencement of the OTC Brokered Market is a potentially significant addition to the provision of liquidity in the SEM. The features of the new OTC facility are:

- Trading Window is 2 hours.
- Any party can enter bids or offers for any product and volume on screen during the Trading Window. These can been edited/updated during the Trading Window.
- During a Trading Window, all counterparties can see the activity on the OTC screen. All bids and offers are visible with just counterparty details hidden.
- All counterparties are able to view the product, volume and price of any trade transacted.

- Credit Agreement and Master Agreements need to be agreed between parties and once in place parties are free to trade.

The benefits of this new OTC facility are as follows:

- It offers suppliers the opportunity to initiate trading for products and volumes that they require. This is a significant change from the NDC auction process, which is generator-led.
- Both generators and suppliers have a role in contract price determination, via offers and bids respectively (it is generators-only with the auction process), facilitating better price discovery for the contracts.
- More dynamic trading on the OTC markets - both suppliers and generators can respond to interest shown during the auction window, in terms of both volume of power and also price.
- The OTC market allows any party the means to buy or sell power and facilitates market entry.
- Activity on the OTC market could help lead to the formation of a forward curve.

The latest RA paper on NDC levels is available at the link provided above.

3.2 European Integration

The SEM Committee has established a project to explore options that will enable the SEM to evolve its rules to implement the provisions of the CACM Network Codes for Day-Ahead and Intra Day. For further details, including a Project Initiation Document which sets out how this project will be undertake, please see the following link:

http://www.allislandproject.org/en/TS_Decision_Documents.aspx?article=c67daa67-ab4a-4ff8-8098-32a8edbdf91e

As part of the project the RA's Market Integration Project Team will commence work on Day-Ahead Coupling in SEM, and this may involve the use of contracts. Any key developments in this area will be consulted on by the Market Integration Project Team.

3.3 ESB's New "Partial Vertical Integration" Proposal

In late June 2011 ESB submitted a revised "partial vertical integration" proposal to the RAs, having considered the views expressed by CEPA in their December 2010 paper.

Essentially the proposal involves ESB generator/supply integration from an operational perspective in return for a defined portion of ESB's generation output being ring-fenced for contract provision - these contracts would be regulated by the RAs more than at present. This amount of output to be ring-fenced would be agreed with the SEMC. Following receipt of ESB's revised proposal, the RAs commissioned CEPA to carry out an independent from a market power and liquidity perspective. CEPA's report, provided to the RAs in September, with the final report in November, expressed some concerns with the proposal - please see the CEPA report appended to this paper.

In their proposal ESB distinguished "Generation Activities" in the SEM into what they call Generation Operations and Generation Capacity, where Generation Operations is the day-to-day running of generation plant and the bidding of plant into the Gross Mandatory Pool (based on BCoP) and Generation Capacity which is the use of generation for the purpose of selling contracts.

ESB propose that the traditional ring-fences would be removed from between the Supply Activities and the Generation Operations Activities, but remain applied to a defined portion of the Generation Capacity, which ESB suggest calling the Regulated Generation Capacity. The balance of the Generation Capacity would be vertically integrated with ESB's supply business. "Regulated Contract Sales" would be the ring-fenced and licensed function dealing with the Regulated Generation Capacity and would remain obliged under licence to offer CfDs and liquidity to all parties in the market on a transparent and non-discriminatory basis - the contracts would be subject to more RA regulation. This is shown schematically in the illustration below.

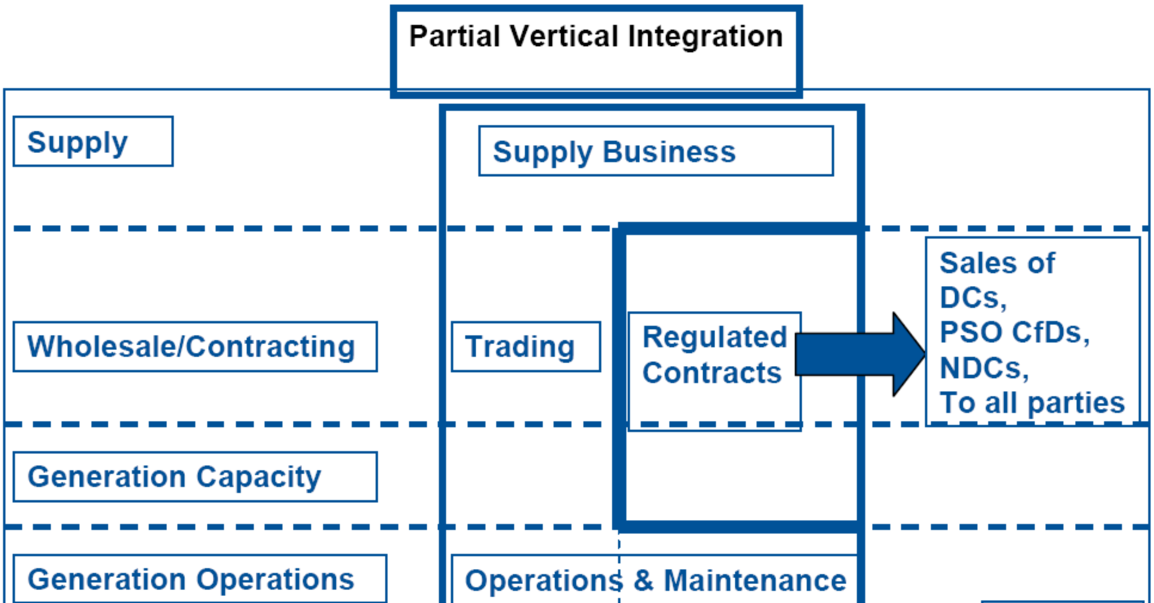


Figure 4

The ring-fenced boundary between the Regulated Generation Capacity and the balance of ESB's Generation Capacity (the Integrated Generation Capacity) could be defined by and agreed with the RAs in a Road Map. The boundary would be dependent on market conditions, allowing a gradual but controlled move towards full vertical integration as and when the RAs believe that a further move of the boundary is warranted.

4. Policy Proposals

4.1 Consultation

Taking account of the comments received to the CEPA paper (see section 2) and latest relevant developments (see section 3), the SEM Committee now sets out below its view in relation to SEM market power, liquidity and ESB integration.

4.2 Proposed Approach to BCoP, MMU & DCs

BCoP & Market Monitoring

From January to mid August 2011, ESB PG's share (including its peat plants, which are subject to a PSO) of the wholesale SEM pool was circa 28% by output, with ESBIE (Synergen and Coolkeeragh) having an 18% share. Therefore ESB has at present a circa 46% share in total by SEM market scheduled quantity.

In other words the SEM spot market at present is quite highly concentrated. However, the SEM Committee is satisfied that there has been no significant market power exercised in the spot market to date due to the relevant market power mitigation measures in place. BCoP, MMU and DCs have helped ensure that generator bids are at competitive SRMC levels, resulting in SEM wholesale prices (SMP) that are efficient and providing the correct market signals CEPA also believe that these measures have played a strong role in mitigating market power. In particular they noted in their December paper that:

"*the apparent success of the SEM should not be taken to mean that the BCoP and MMU should be removed, as our analysis shows that there will still be potential for market power abuse*" [p5];

and,

"*the apparent success of the BCoP and MMU suggests that these provisions are effective and will and should remain in place for the foreseeable future to militate the risk of any market power being exploited"* [p33].

With new interconnection and generation predicted in the coming years, CEPA's forward-looking modelling analysis, detailed in its December paper, indicates that ESB's RSI levels in 2015/20 would *on average* not be at levels of concern from a market power perspective. However there would still be some hours/scenarios when RSI is below 1.2, the threshold that typically suggests market power potential, due to increased levels of intermittent generation, i.e. wind power. Therefore CEPA suggested that the RAs maintain a robust market power mitigation strategy for the foreseeable future.

In view of this and the responses to the CEPA paper on the issue, the SEM Committee will maintain BCoP/MMU and DCs as market power mitigants for the foreseeable future. If the spot market becomes significantly less concentrated in the future, the RAs would then review these market power mitigation measures.

In terms of MMU transparency, a decision paper on MMU governance will be published shortly which will help clarify the internal procedures carried out by the MMU.

In addition, in relation to the issue of monitoring potential market power abuse, the RAs note that the proposed European Regulation on Energy Market Integrity and Transparency

(REMIT) is currently expected to be adopted as law before the end of the year. Among various requirements, REMIT is expected to:

(a) Prohibit spot and contracts energy market abuse, filling the gaps on abuse and insider-dealing prohibitions in the Market Abuse Directive, which is more focused on financial markets; and,

(b) Enable ACER to gather necessary energy market data at Member State and EU level to examine if there is any ongoing market abuse.

Implementation will take place at different stages following REMIT becoming law. Further information is available at the following links:

http://ec.europa.eu/energy/gas_electricity/markets/wholesale_en.htm

http://www.europarl.europa.eu/document/activities/cont/201107/20110701ATT23104/20110701ATT23104EN.pdf

Hence REMIT is expected to provide an extra level of market power abuse protection for SEM, given that there will be new market monitoring carried out by ACER in addition to that carried out by the MMU and the RAs generally.

Directed Contracts

DCs will remain based on HHI as there is no compelling reason to adopt RSI. Regarding the issue of short-term and/or diverse DC products, it should be noted that the primary purpose of DCs is as a generator market power mitigation mechanism rather than as a liquidity measure per se. That said, from a liquidity perspective, the RAs consider that the current annual offering of DCs now work well. This is because PSO-related CfDs are being offered quarterly, as monthly products for the following quarter. Hence the longer-term (annual) offering of DCs compliments the mixed offerings of NDCs and short-term offerings of PSO-related CfDs. This gives suppliers a good mix of short-term and longer-term products, helping them to manage their business efficiently.

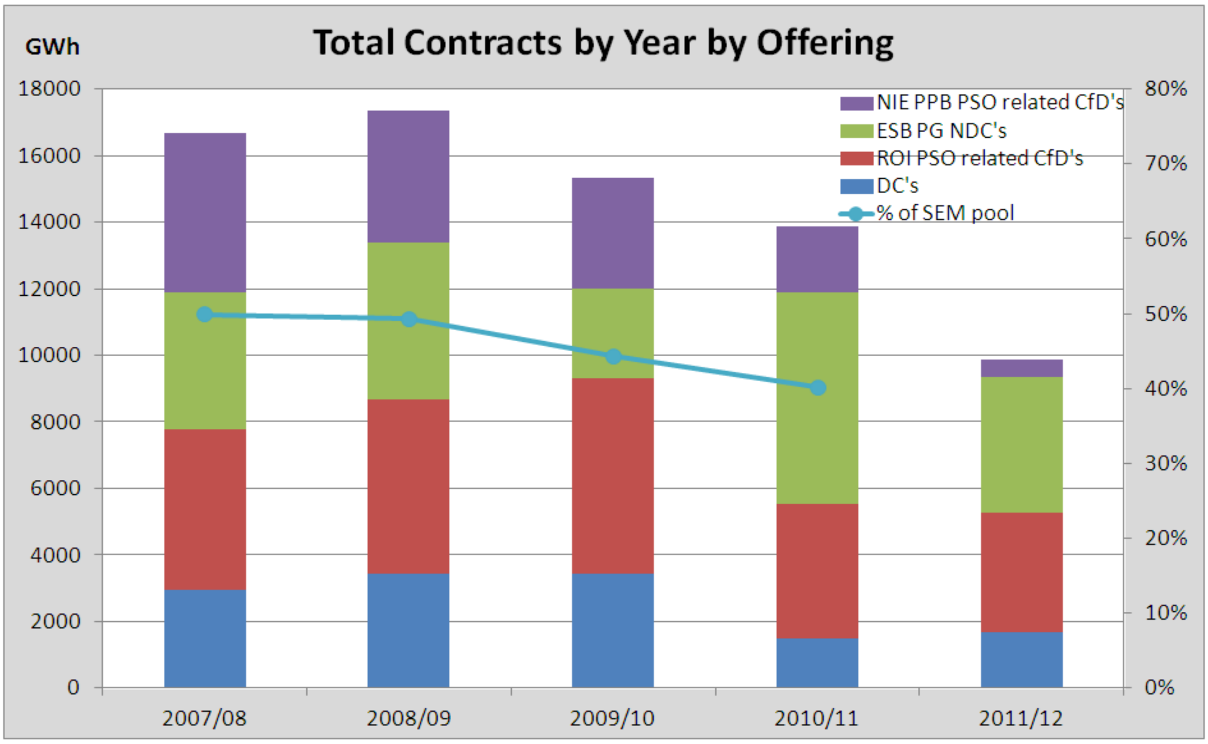
The HHI threshold, DC levels and frequency of future DC offerings is discussed separately in section 4.4 below.

4.3 Background to Contracts & ESB Ring-fencing

For information, this section gives a background to contract market power and how it relates to ring-fencing, before providing specific proposals in these areas in section 4.4.

Contracts

The level of contract liquidity in SEM for recent years, divided between DCs, NDCs and PSO-related CfDs, is as follows.



**2010/11 % of SEM pool figure is an estimate only. Also 2011/12 liquidity bar does not include all contracts as some have yet to be offered.*

It can be seen that ESB PG NDCs, whose price is not set by the RAs, are an increasing portion of overall contracts offered (excluding private contracts among market participants), at circa 45% in 2010/11. Hence, even if ESB continues to be ring-fenced, the exercise of *contract market power* by ESB PG is increasingly possible. In this scenario, while Electric Ireland could reduce its profits by over-paying for contracts, this would be more than compensated for by extra profits made by ESB PG, because over-priced contracts would not only be bought by Electric Ireland but also other suppliers. This strategy would also raise the price of contracts for other suppliers, leading to higher customer prices and/or negatively impacting on retail competition.

Vertical Ring-fencing

In relation to the current "status quo" ring-fencing of ESB, CEPA are of the view that the SEM is working well and delivering on its objectives, including attracting significant new investment. ESB vertical ring-fencing between generation and supply prevents particular informational advantages accruing to Electric Ireland (see next section). It also facilities the ongoing regulatory oversight whereby the RAs can at least view ESB PG NDC prices, thereby limiting - though not stopping as outlined above - its ability to exercise market power in the contracts market, especially compared to a fully integrated business model. Further information is available in the CEPA report of last December.

4.4 Proposed Approach to Contracts & ESB Ring-fencing

Vertical Ring-Fencing Continues

The SEM Committee will not allow either the ESB full vertical integration or "partial vertical integration" options for now. The reasons for this are detailed below.

- As referred to in section 4.2, in total ESB's generator units have a 46% share of the spot market. This is equivalent to a HHI level of 2,116, if ESB is allowed to horizontally integrate its generation units (see later). In other words, with horizontal integration, the spot market at present is quite highly concentrated using the internationally applied HHI measure.

- CEPA are of the view that full vertical integration is unfavourable as it could damage competition. CEPA said that ESB's generation arm would provide an automatic hedge for its retail arm, "reducing or eliminating its need to trade contracts with other market participants unless this were mandated" and that any liquidity proposal by ESB, in the context of a vertically integrated company, would only "mitigate a power that ESB does not currently hold due to ring-fencing". Please see CEPA's paper published last December for more information.

- In a fully integrated model, the fear is that contract market power potential is more significant than the status quo. This is because ESB PG could deliver below-cost contracts to Electric Ireland and above-cost contracts to other suppliers (without the RAs being aware of it) because the "Non Discrimination Offer" clause would be removed. Thus the exercise of contract market power by ESB could be even more dramatically disruptive to other suppliers and retail competition than outlined in section 4.3 above, to the long-run cost to the consumer.

- There could be informational advantages which would benefit Electric Ireland with either vertical integration option. For example Electric Ireland could know of a likely (unpublished) forthcoming ESB generator outage, so it would know to buy forward contracts, and other suppliers would not be aware of this and would be exposed to the higher SMP. Electric Ireland would also be aware of other supplier contract purchases from ESB, providing it with an advantage over other suppliers. This could have a negative impact on competition and new entry in both the retail and wholesale markets. CEPA were also concerned that vertical integration would dissuade potential new entrants who would fear that they would be subject to hard-to-monitor forms of discrimination.

- There would be a reduction in contract liquidity under ESB's full integration "liquidity undertaking". In this scenario there would be circa 2.6 TWh available to independent suppliers, under current spot market conditions between DCs and NDCs. This compares to approx. 6.7 TWh which has been offered to date for the 2011/12 contract year, though it is noted that that Electric Ireland buys a considerable percentage of these contracts (whereas the 2.6 TWh would be a net figure available to all other suppliers).

- While it is acknowledged that there could be more RA "contract regulation" under ESB's "partial vertical integration" option, along with a similar level of liquidity to present levels, CEPA are of the view that this option is unfavourable as doing so would replace a structural remedy with a likely less efficient and/or effective regulatory remedy. CEPA make the point that although the proposal would remove some existing ring-fencing restrictions on ESB, it would "require significantly more regulatory oversight, and on a more frequent basis, of the company than at present". This goes against the ultimate aim of the SEM which is to move towards less regulation. CEPA also had concerns that if partial integration was granted then it would be "easier for ESB, with its informational advantages, to argue for additional, gradual, integration over time, than to argue for the jump from full separation to full integration in one go". For more information please see CEPA's report appended to this paper.

The SEM Committee would, however, separately consider any proposals for ESB vertical integration in the context of a material change to market power in the SEM. An example of a material change would be a significant divestment of a portion of ESB's generation plant portfolio.

Separately, there are legacy contracts between the Synergen and Coolkeeragh plants and ESBIE (now part of Electric Ireland). The Regulatory Authorities have examined these contracts along with current licence requirements. It should be noted that the contracts relate to the Synergen and Coolkeeragh plants only, and Electric Ireland acts as an agent for these plants only. Furthermore the licence requirements are such that no cross-subsidies between generation and ESBIE can apply with respect to this generation output.

Allow Horizontal Integration

Contrasting with vertical integration, the following considerations make horizontal integration of ESB generation more acceptable:

- CEPA states in the December paper that, with BCoP in place, *"the operational horizontal separation of ESB seems to have little value in promoting competition, whilst adding some cost to ESB, and thus an operational integration should be considered".* Thus it believes that horizontal ring-fencing could be removed because the operational efficiency benefits in doing so might be worth the small market power risk. This is because BCoP and the MMU help ensure that all generator bids are at appropriate SRMC levels, irrespective of horizontal integration, and indeed DCs provide further protection in this regard. There would not be the higher market power risks associated with full vertical integration (see above).

- ESB could make generation cost savings from horizontal integration, with low market power risks for the end customer. Any efficiency gain would be welcome, especially in the current economic climate.

- With current ESB ring-fencing and the planned commissioning of the East-East Interconnector next year, it is expected that from October 2012 (the next contract year), DC volumes will drop dramatically from their current level of 1.66 TWh. Horizontal integration would, in contrast, significantly increase the quantity of DCs available to eligible market participants, due to ESB's market share in the spot market increasing. DCs would rise noticeably from the current 1.66 TWh level, probably doubling or more to circa 4 TWh, though the exact figure would depend on modelled fuel prices, etc. It is anticipated that this would largely involve a swap of ESB's NDCs for DCs. The increase in DC volumes would increase the proportion of total contracts made available that are regulated by the RAs, reducing the NDC proportion from circa 45% at present (see earlier graph) to, for example, 30%, thereby reducing the contract market power potential (see section 4.3).

In light of these issues the SEM Committee will allow the horizontal integration of ESB generation units, i.e. of ESB PG and ESBI (Synergen and Coolkeeragh). This will formally apply from 1st October 2012, and the RAs will work on the licence changes needed to transition to horizontal integration from early 2012 through to October 2012.

DC Offerings

The threshold for the provision of DCs will continue to be the current 1,150 HHI level for the moment.

As referred to above, with horizontal integration of ESB, and applying the current HHI threshold, the DCs levels for the next contracting year (i.e. from October 2012) would be expected to rise noticeably from the current 1.66 TWh level. They will probably double in volume or more, to circa 4 TWh, though the exact figure will depend on fuel prices etc. If ESB were to remain ring-fenced (which is not proposed), DC volumes would instead be expected to fall very substantially from current levels, due to the commissioning of the East-West Interconnector.

Early next year the RAs will consult on the frequency of the DC offerings for 2012/13 (i.e. annual or more regular), in a similar manner to this year, before deciding on the matter.

4.5 Proposed Approach to Liquidity

The SEM Committee notes the recent developments in contract liquidity, discussed in more detail in section 3:

- PSO-related CfDs will continue, as confirmed by the RAs in April;
- Regular NDC auctions are being held, including for short-term products; and,
- A new Tullet Prebon "Over the Counter" (TP OTC) trading facility has commenced and may help to assist liquidity, by allowing for suppliers and generators to interact more with respect to contract price and quantities, assisting in price discovery.

The SEM Committee considers liquidity developments best happening "organically" through industry/market initiatives rather than being mandated by the RAs. The new OTC trading facility (referred to above) is a move in that direction.

The SEM Committee doesn't consider it appropriate at this time to establish a market maker facility in which a market participant (say ESB) would be required to continuously have a buy/sell facility for contracts at all times (e.g. via an exchange). Similarly the Committee will not proceed with an option of mandating contracts from generators at this time. There could be a significant cost to industry from requiring a market maker or mandating contracts form generators, while the demand for such a continuous trading facility is unclear, and it is noted that the majority of respondents to the CEPA paper were against pursuing such options.

However, there may be a case for proceeding with such an approach in the future, in the context of the integration of SEM into European markets. This is because market-coupling with Europe could involve day-ahead CfDs. The RAs' Market Integration Project Team will lead this work and any initiatives in this area will be fully consulted on by the RAs at the appropriate time. In the meantime the RAs will meet interested stakeholders, to assist where possible in developing industry-led solutions to contract liquidity.

The SEM Committee will continue to monitor the market and if there is any evidence of market power being exercised and liquidity levels significantly falling, the Committee reserves the right to take further action, including the lowering of the HHI threshold for DCs.

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