

PANDA POWER RESPONSE TO SEM DISCUSSION PAPER SEM-20-045

MARKET POWER AND LIQUIDITY DATED 7th JULY 2020

Context

In recognition of the lack of liquidity in the I-SEM forward market and the adverse consequences of same, the SEM Committee issued a Consultation Paper SEM-16-030 on the 17th June 2016 entitled 'Measures to promote liquidity in the I-SEM forward market'. It was recognized that there was a need for forward hedging instruments and that liquidity in trading these instruments was an important aspect of a successful market.

Lack of liquidity limits the ability of new entrants and small firms to buy and sell electricity in the wholesale market and therefore limits competition in that market. It also limits the ability of existing market participants to increase their share of the market and their scope to provide the best possible deal for consumers. Because poor liquidity is also a barrier to the formation of signals to future prices it also acts as a barrier to investment, which look to such signals to support its decisions. Poor liquidity is self-reinforcing as market participants need confidence in price signals to trade and adequate volumes traded to have confidence that they can find buyers and sellers at acceptable prices. Absence of robust price signals and limited volumes thus deter trading and reinforces a lack of liquidity in the market.

The SEM Committee identified two possible forms of market intervention to improve liquidity:

- A Forward Contract Sell Obligation (FCSO) on generators to supplement Directed Contract and PSO CfD volumes
- A Market Maker Obligation (MMO) on certain larger market participants to promote price discovery and improve market access for all participants

It was also noted that the Directed Contract and PSO CfD arrangements provide some measure of liquidity and that these should be retained.

Subsequent to the above the SEM Committee issued a Decision Paper on the 16th March 2017, SEM-17-015. While continuing to recognize the problems arising from the lack of liquidity in the forward market the Committee decided not to intervene in the I-SEM Forward Market from its inception.

It is worthy of note that of the twenty three responses received to the Consultation Paper SEM-16-030 only four expressed a belief that the liquidity problem in the wholesale market could be solved by the market itself i.e. without regulatory intervention. We believe that it is reasonable to assume that the four market participants who saw no need for change are the four large vertically integrated suppliers. The SEM Committee has noted that vertically integrated companies are in a different position to non-vertically integrated companies in that the vertical integration can provide a financial hedge against volatile wholesale prices and a natural hedge against balancing risk.

The SEM Committee also decided in its Decision Paper Sem-17-015 that it would undertake a review of liquidity in the I-SEM Forward Market 18-24 months after the I-SEM energy market starts

operation, and that it would also then assess the functioning of the forward energy market and consult on any necessary policies.

It is now four years since the original Consultation Paper was issued in June of 2016. In this time there has been no substantial improvement in Forward Market liquidity. We believe that this market failure is extremely regrettable with some of the consequences being:

- Consumers being deprived of a sufficiently competitive market
- Restrictions on the product choice available to consumers
- Customers paying higher prices than would otherwise be the case
- Restricted ability of non-vertically integrated suppliers to grow in the market
- Higher risk levels being carried by some suppliers with potential for liquidity and solvency concerns in the event of unexpected and sustained market volatility
- The exit from the market of one new entrant

The issue relating to the lack of liquidity in the Forward Market is as much about ‘price’ as ‘volume’. The price levels pertaining in the Forwards Market have a greater influence on end user customer prices than spot prices. Excessive pricing in the Forward Market feeds through to customers in the form of higher retail tariffs. Hence it is in the public interest to have well-functioning and competitive Forward Markets.

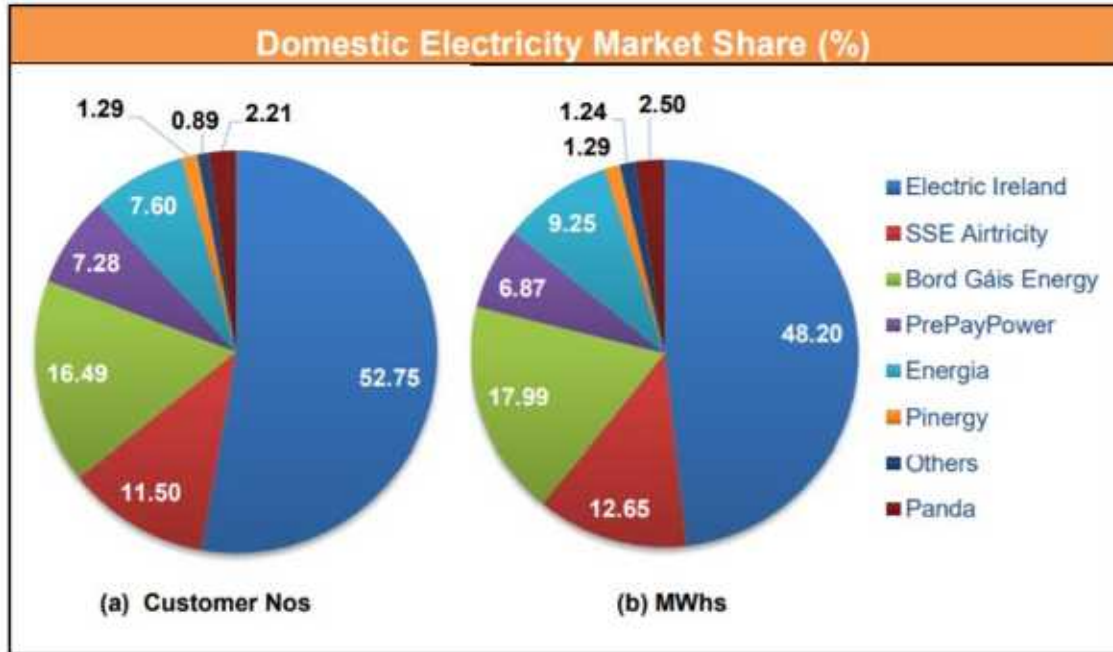
In replying to the current Discussion Paper, we have structured our response based on the questions set out in section 6 ‘Call for Evidence’.

Is the electricity market sufficiently contestable that market participants are free to enter and exit the market?

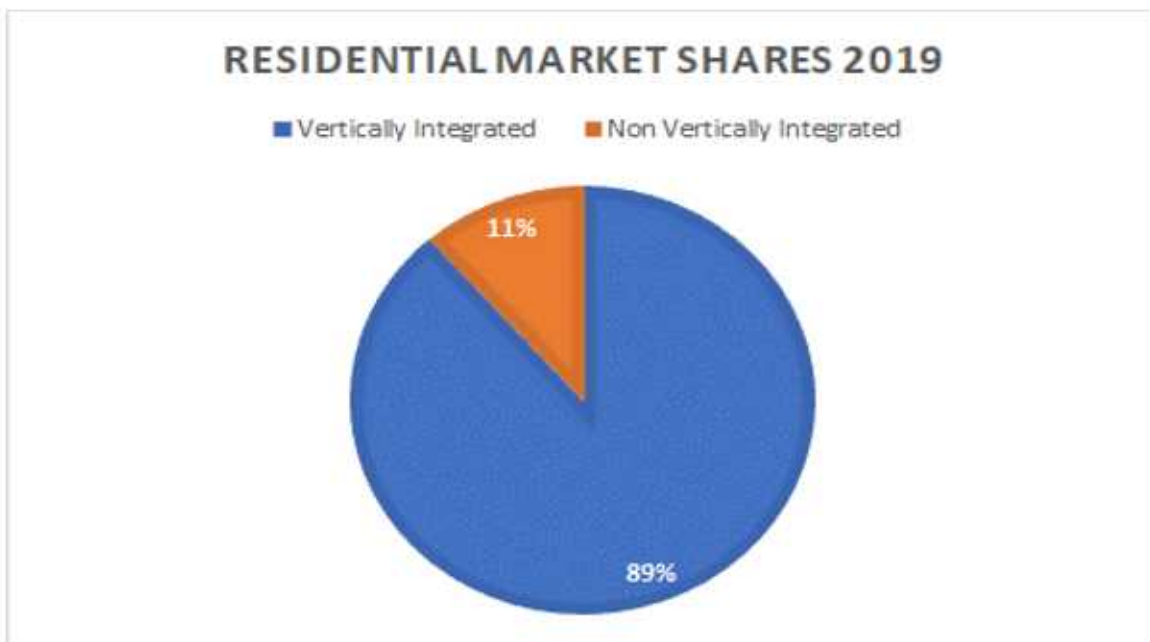
From a procedural point of view there are no material issues regarding suppliers joining or leaving the market. The lack of forward market liquidity is a barrier to non-vertically integrated suppliers growing and sustaining their businesses.

The ESB, through its retail arm, Electric Ireland holds a 38% share of the total retail market. The ESB continues to hold a dominant position in the residential sector with a 53% market share (based on customer numbers) and a 48% share (based on volume). The majority of the switching activity in the market is outside of the ESB customer base. While the reported switching rate for the market is about 16%, we would estimate the ESB switching rate at about 9%.

Domestic Market shares as reported by the CRU are as follows:



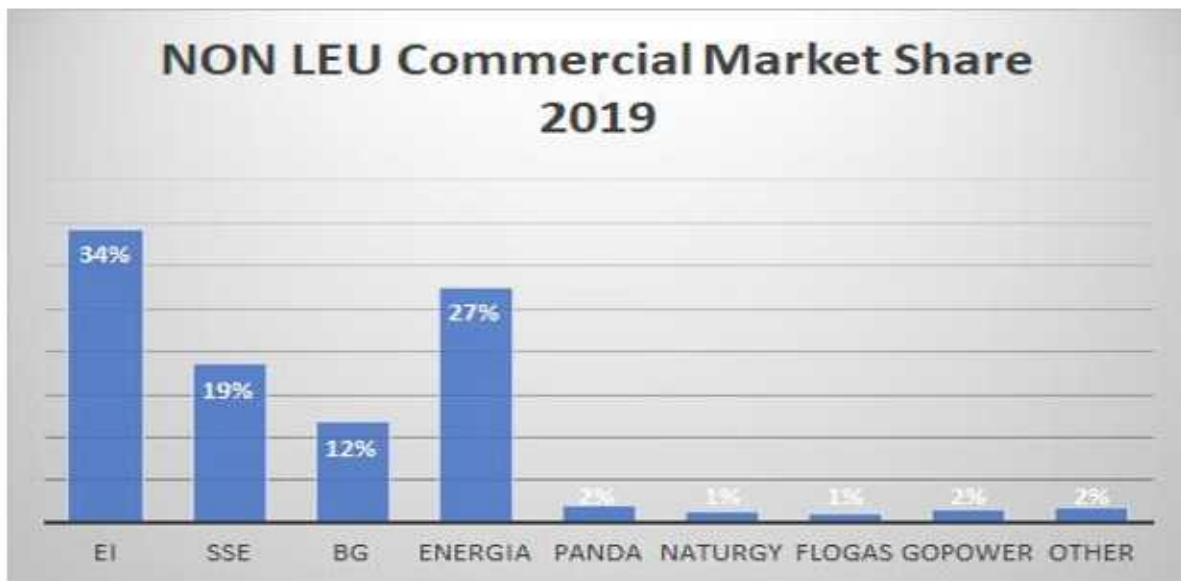
The market shares between vertically and non-vertically integrated suppliers is as follows:



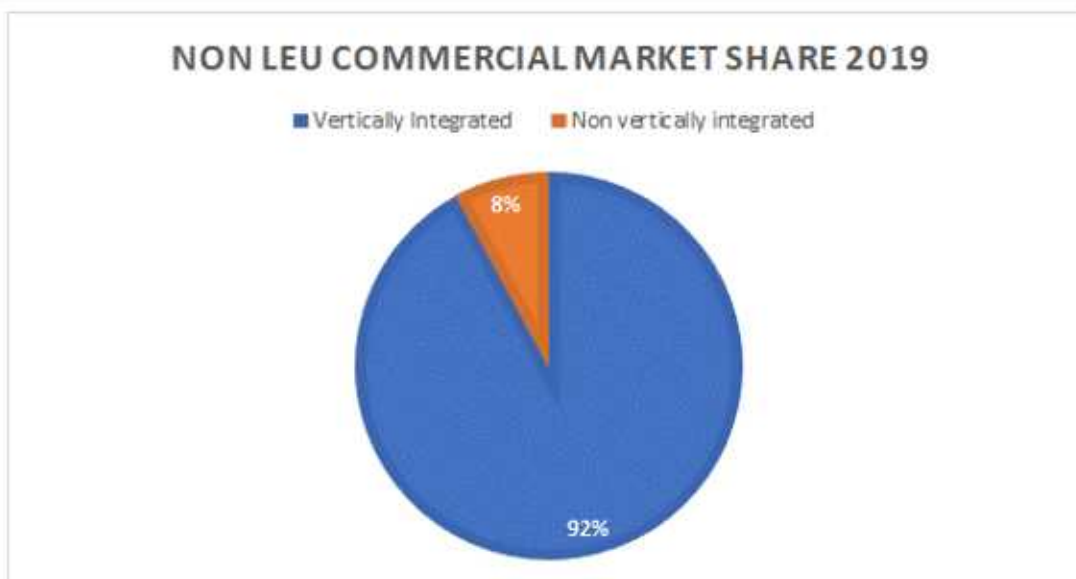
Non vertically integrated suppliers are hindered in growing their market share relative to the 'Big Four' due to the lack of forward market liquidity. Specific issues are as follows:

- Limited access to Directed Contract volumes
- High and frequently uneconomic hedge premia in OTC markets
- No certainty re volumes in OTC market
- Difficulty in risk managing fixed price customer commitments
- Lack of shaped hedging products

Market shares in the Small and Medium commercial sector are as follows:



Once again, the market share held by non-vertically integrated suppliers is quite low as follows:



Most small and medium commercial electricity customers require fixed price offerings with a contract duration of one or two years. From a risk management perspective, suppliers need to lock in the commodity cost at the same time as the fixed price commitment is given to the customer. To manage this risk effectively suppliers, need the following:

- Facility to hedge at any given time/frequent time intervals
- Access to appropriate lot size
- Sufficient hedge contract duration e.g. two years
- Suitable products e.g. Baseload/Mid-merit/peak
- Economic hedge prices

The current hedging products available to non-vertically integrated suppliers do not meet these requirements. Non vertically integrated suppliers are therefore at a competitive disadvantage relative to vertically integrated suppliers. This failure in the Wholesale market feeds through to consumers in the form of reduced competition, higher prices, and reduced product choice.

We note that one new entrant supplier exited the market late in 2019 and understand that the lack of economic hedging products was a material influencing factor in their decision.

LEU customers typically require customized price offerings. While non-vertically suppliers can offer a pass-through pricing arrangement the lack of liquidity in the wholesale market (volume and price), renders it difficult to meet customer requirements in terms of fixed price options.

Do you agree with the SEM Committee's intended approach of not further reviewing ESB's current ring-fencing arrangements at this time, and outline rationale for agreeing with the SEM Committee's intended approach? If not, please outline the basis for why ring-fencing arrangements should be reviewed and either partially/entirely removed.

We agree with the SEM Committees intended approach on this matter. The ESB retains a dominant position both as regards the retail market, the wholesale market and generation. The ESB also owns the electricity transmission system. Combined with its semi-state status the ESB holds such a dominant position in the Irish Power market such that it is difficult to find a comparable situation elsewhere in Europe.

The ESB is majority owned by the Irish Government and operates across the full scope of the electricity market including generation, transmission and distribution, supply to consumers and the developing area of customer solutions. The ESB transmission and distribution system has a regulated asset base valued at euro 8.2 billion and earns a guaranteed return on this. The ESB also owns the transmission system in Northern Ireland which has a regulated asset base valued at euro 1.9 billion with a similar guaranteed return. The ESB also has a supply company in Northern Ireland and a growing position in the Great Britain generation and retail markets.

As per it's published Annual Report the ESB had a turnover of euro 3.7 billion in 2019 and reported an operating profit of euro 682 million. The composition of the operating profit was stated as follows:

Euro'm

| | |
|-------------------------------------|-----|
| Networks (ROI) | 344 |
| Generation and Trading | 198 |
| Electric Ireland/Customer Solutions | 59 |
| Northern Ireland | 61 |
| Others | 20 |
| Total | 682 |

While the Networks (ROI) section of the business accounts for 50% of the operating profit, the Electric Ireland retail division only accounts for 9% of the operating profit. It is clearly imperative that there is no inappropriate cross subsidization within the ESB Group. We note that ESB Independent Energy (NI) Limited, the ESB supply business in Northern Ireland made a Net Loss in 2018 of euro 3.4 m and a Net Loss of euro 3.3 m in 2017, as per the most recent published accounts. We also note that the Company had a deficit in shareholder funds of euro 3.8 m as at the 31st December 2018 and that the Directors noted that the company is dependent on the financial support of its parent, with the ultimate parent company being the ESB.

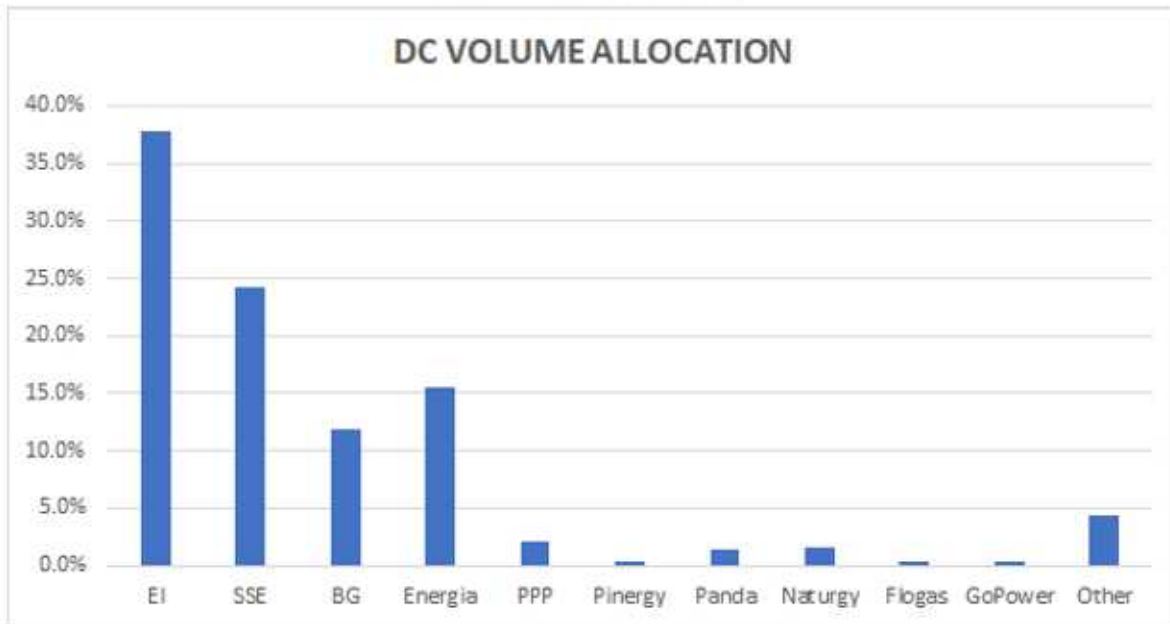
Should the SEM Committee continue to use Directed Contracts as a mechanism for mitigating the potential use of market power in the SEM ? If not, please provide rationale for not applying Directed Contract obligations, and detailed alternative options for mitigating potential market power.

The ESB, through its retail arm, Electric Ireland holds a 38% share of the total retail market (in volume terms). The ESB continues to hold a dominant position in the residential sector with a 53% market share (based on customer numbers) and a 48% share (based on volume). The majority of the switching activity in the market is outside of the ESB customer base. While the reported switching rate for the market is about 16%, we would estimate the ESB switching rate at about 9%. In addition, the ESB's generating assets supply approximately 30% of the All Island electricity demand through the wholesale market. Furthermore the Euro 10.1 billion of regulated transmission and distribution assets provide the ESB with circa euro 400 million of guaranteed profits and put the overall ESB Group in a position where it is significantly less dependent on the profits earned by its retail supply business than other energy suppliers.

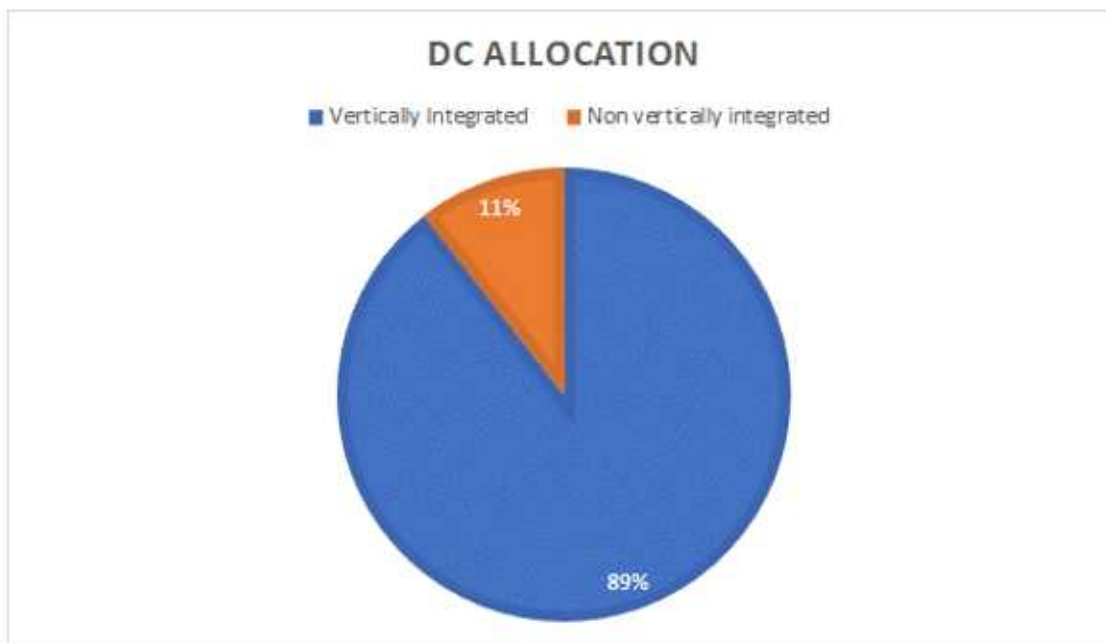
The Regulatory Authorities decision to impose Forward Contract Sale (Directed Contracts) obligations on the ESB Generation has been a core part of the SEM market power mitigation strategy, as it reduces the ESB's incentive to engage in any possible abuse of market power in the SEM spot market. We firmly believe that the Directed Contract arrangements are essential in mitigating the risk of any abuse of power and should therefore be retained.

We note that as Electric Ireland is part of the ESB that a large part of the Directed Contract volumes are in fact internal to the ESB.

The allocation of DC volumes for 2019 (based on CRU published market share statistics) would be approximately as follows:



While the primary motivation for putting the DC arrangements in place relates to market power mitigation, the Directed Contracts also constitute the only effective hedging tool available to non-vertically integrated suppliers. Unfortunately, the volumes available to non-vertically integrated suppliers are extremely small. We estimate that of the total DC volumes in 2019 of 4.9 TWh, less than 5.5 GWh was allocated to non-vertically integrated suppliers.



The Regulatory Authorities have deemed it necessary to put in place the Directed Contracts regime in order to mitigate the incentive for the ESB to engage in any abuse of market power in the SEM

spot market. However due to its dominant position in the retail market approximately 38% of the DC volumes are then allocated back to the ESB. With the current inequalities in the market between vertically integrated and non-vertically integrated suppliers the practice of allocating back to the ESB 38% of the Directed Contract volume seems to run contrary to the stated objective of reducing market power.

Assuming the SEM Committee's continuation with Directed Contracts, would you be in favor of the Directed Contracts price being determined by a competitive auction? If yes, how should the auction be designed (i.e. what should auctions be trying to achieve/avoid in the proposed design for Directed Contracts)? If not, please provide details of alternative options (e.g. should the RAs amend the DC pricing formulae?).

We should look to address the core and substantial issue and not focus on an aspect (price determination) which does not require change and where the contemplated change would work against the interests of consumers. The RA's should consider amending the arrangements for allocating Directed Contract volumes which provides a real opportunity for partly addressing the forward market liquidity issue right now.

It is absolutely essential that Directed Contracts prices are 'not' determined by a competitive auction. Such a decision would favor the Big Four vertically integrated suppliers and be extremely damaging to the interests of the smaller non-vertically integrated suppliers. As such any decision to move to an auction-based approach would result in reduced retail market competition, increased market concentration and would not be in the interests of consumers.

The total annual volume of DC volume available in 2019 was 4.97 TWh compared to a total ROI metered volume of 27.7 TWh. Hence the DC volumes represent about 18% of the overall ROI market volume. We understand that the total ALL Island metered volumes were about 35 TWh in 2019. Due to the overall lack of liquidity in the forward market the demand for the DC volumes will invariably exceed supply. In this position of scarcity, the result of moving to an auction basis would be that:

- Prices are bid up to uneconomic levels for smaller suppliers
- Smaller suppliers fail to secure any volumes
- Larger suppliers are motivated to bid up prices to squeeze out newer entrants
- Higher DC prices feed through to higher prices for consumers

We believe that to change the pricing arrangements to a market-based auction where the Big Four have undue influence would be detrimental to the interests of new market entrants and non-vertically integrated suppliers.

The current approach whereby volumes are allocated based on historic total volume sales favors the larger long-standing suppliers and penalizes newer entrants who are trying to compete with well-established existing players and grow their market share. In order to promote competition and establish a more level playing field between vertically integrated and non-vertically integrated suppliers we would suggest that the current arrangements for determining the eligible volumes for each supplier be amended along the following lines:

First Window:

Volumes allocated equally with proviso that maximum eligible volumes may not exceed most recent twelve months metered sales

Second Window:

Suppliers may apply for any volumes not allocated in the First Window with pro-rating as required

The reality is that the large vertically integrated suppliers can manage their trading risk internally or where necessary bi-laterally. Non vertically integrated suppliers however cannot. The three large non-government owned vertically integrated utilities receive about 51% of the total Directed Contract volumes with the ESB receiving approximately 38%. From a risk management perspective these respective large vertically integrated suppliers are receiving a benefit which they do not actually need. Common sense would dictate that the resource should be allocated to those suppliers whose businesses are actually dependent on it.

Clearly volumes which are sold on a pass-through basis to LEU customers do not need to be hedged. However, these pass-through volumes are eligible under the DC volume eligibility arrangements. This approach again works in the favor of the large suppliers and results in newer entrants who supply residential and non-LEU customers receiving disproportionately lower DC volume allocations. We would support excluding LEU volumes when determining each suppliers DC entitlements.

The current DC pricing formula is based on actual input costs and market prices prevailing during recent historic trading periods in the SEM Day Ahead market. This represents a factual and transparent approach which is independently verified. Hence, we believe that this basis works well and should be continued. Occasionally suppliers have queries regarding why the regression formula, or the resultant prices have changed. We suggest that the Regulatory Authorities issue a short explanatory note on a quarterly basis with each new DC Round.

Assuming the SEM Committee's continuation with Directed Contracts, do you agree that the Market Concentration Model is an appropriate mechanism for determining Directed Contracts volumes? If not, what amendments/alternative approaches should be taken by the RAs in determining DC volumes?

The RA's use the HHI (Herfindahl-Hirshman Index) to assess market concentration. This model is used across the European Union to assess market concentration and has established itself as the most appropriate benchmark for measuring market concentration. In ROI the historic incumbent, the ESB controls 38% of the market with the other three large vertically integrated suppliers controlling about 51% of the market. Clearly the market remains highly concentrated.

The failure to introduce changes to the Forward Market (to improve liquidity) or implement compensatory measures has hindered the ability of new non-vertically integrated suppliers to grow and hence has resulted in the Irish Market remaining highly concentrated.

Where, as in the case of Ireland a small number of players control the bulk of the market the risk of such market power being exploited to the detriment of consumers is greater.

It has been recognized by the RA's and industry participants in general that while the primary rationale for the introduction of the Directed Contract arrangements is to mitigate the risk of market power abuse, that they provide (in the absence of a liquid forward market) the primary tool to enable non-vertically integrated suppliers to manage trading risk. Unfortunately, at present the Directed Contract volumes allocated to non-vertically integrated suppliers constitutes a very small part of their hedging requirements.

We agree that the current Market Concentration Model is appropriate for determining the overall Directed Contract Volumes. However, we believe that the current system of allocating the directed contract volumes to individual suppliers is flawed in that:

- It favors the long-standing incumbent vertically integrated suppliers to the detriment of new entrants
- It helps re-enforce the high concentration levels in the Irish Market
- By failing to support newer entrants it hinders their ability to grow
- It provides a financial and risk management support to large vertically integrated suppliers which is unjustified relative to the support provided to newer entrants
- Over a third of the overall DC volumes are allocated internally within the ESB

It is in public interest that the current Directed Contracts volume allocation process be adjusted to support increased competition and reduced concentration in the market. We are requesting a change in the current process whereby Directed Contract volumes would be allocated initially on the equal basis between suppliers, subject to a cap whereby any individual suppliers' allocation may not exceed their annual volumes.

Are there any specific reasons for which a market participant has not taken up their allocated Directed Contracts eligibility for a given period? (e.g. The DC price did not reflect your expectations/already had a hedging strategy for the period in question, have access to alternative hedging products etc.)

It has happened on a rare occasion that DC prices for a particular quarter were higher than we expected and based on our assessment did not represent fair value. This has tended to arise in relation to some Quarter 1 quotes where perhaps models are more sensitive to demand and available generating capacity assumptions. Where market participants make different assumptions on cost drivers it is not surprising that price expectations vary. We did not take up our Round 10 DC allocation as we judged that it did not represent value to us. This was very much the exception.

Due to the lack of liquidity in the market (volume and price), the DC allocations are important to our business model in that they afford us the opportunity to hedge at economic prices. Exposures can also be hedged through NDC OTC market auctions, but it is our experience the auction prices tend to be uneconomic.

As per our previous suggestion it would be helpful if the RA's were to publish a short explanatory comment with each DC Round Information Paper.

We do not see it as a problem if some suppliers decide not to take up their DC allocation from time to time. The volumes do of course then become available to other suppliers in the second Window.

The annual review and consultation exercise which the RAs engage in is very helpful and enables suppliers to engage in the process should they so wish.

FORWARD CONTRACTING AND LIQUIDITY

In the event of no regulatory interventions regarding forward contracting in SEM, how do market participants envisage the forwards market for SEM evolving in the short, medium, and long term ?

The Regulatory Authorities have recognized repeatedly over the last four years that there is a lack of liquidity in the forward market and that such a lack of liquidity is damaging to competition and limits the ability of market participants to increase their share of the market and their scope to provide the best possible deal for consumers.

Given the above we fail to understand why the RA's are not coming forward with decisions to remedy the problem.

The value of the retail market on the Island of Ireland is circa euro 6.0 billion, with the value of transactions through the SEM being euro 2.2 billion in 2019. Given the importance of a well-functioning market we believe that changes are required to improve forward market liquidity. The consequences of not dealing with this problem include:

- Consumers being deprived of a sufficiently competitive market
- Restrictions on the product choice available to consumers
- Customers paying higher prices than would otherwise be the case
- Restricted ability of non-vertically integrated suppliers to grow in the market
- Higher market concentration levels
- Higher risk levels being carried by some suppliers with potential for liquidity and solvency concerns in the event of unexpected and sustained market volatility
- Perception that RA's are unduly influenced by larger market players

In order to provide competition in the market, grow sustainable businesses and meet the needs of consumers suppliers need to be able to manage financial risk effectively and efficiently. In terms of forward market liquidity, the basic requirement is as follows:

- Suppliers need to be able to hedge as and when required. The ability to enter hedge transactions should not be restricted to infrequent narrow windows.
- The minimum lot size needs to be realistic
- The duration forward which one can hedge needs to match customer requirements i.e. at least two years
- Hedge products should allow suppliers to manage their profile and include baseload. Mid-merit and peak
- The hedge pricing needs to be competitive/economic

We comment below as regards how the hedging facilities currently available compare to these requirements.

Directed Contracts

An important hedging option but volumes are too low, and the current quarterly frequency is too extended. The contract periods extend forward for four quarters only. Many commercial customers prefer to fix their prices for a two-year period. Most importantly the pricing is economic in that it reflects SEM market price formation, and in this sense helps create a more level playing field between vertically integrated suppliers and non-vertically integrated suppliers.

PSO related CFDs

The PSO related CFDs ceased to be available from the end of 2019 and the RA's decided not to seek to replace the loss with any alternative arrangements. The volumes available in 2019 amounted to 1.1 TWh as follows:

PSO SUMMARY 2019

| | Q1 mwh | Q2 mwh | Q3 mwh | Q4 mwh | Year mwh |
|------------|---------------|---------------|---------------|---------------|----------------|
| BL | 176640 | 131040 | 220800 | 220800 | 749280 |
| MM1 | 55552 | 41184 | 69440 | 69440 | 235616 |
| MM2 | 31680 | 23400 | 39600 | 39600 | 134280 |
| | 263872 | 195624 | 329840 | 329840 | 1119176 |

The availability of these hedge products helped non-vertically integrated suppliers to manage trading risk and the fact that the RA's failed to put in place a replacement arrangement has been detrimental to non-vertically integrated suppliers in particular.

OTC Market

Both Tullett Prebon and Marex Spectron provide trading platforms which are available to any market participant who wishes to post bids or offers. There is no obligation on market participants to use these platforms. Overall volumes traded on OTC platforms has fallen and based on the information available to us OTC traded volumes in ROI were about 2.3 TWh in 2019.

Our understanding as regards the Tullett platform is that the majority of trades that are executed are internal to the ESB i.e. Electric Ireland enters trades with ESB Power Gen. In our experience liquidity is poor and the prices offered, which are primarily offered by ESB, are frequently uneconomic. Our research indicated that prices offered on the platform are generally in the region of 5% to 13% above equivalent DC prices. While one would expect to pay some premium to achieve future price certainty the size of the premium sought if paid by non-vertically integrated suppliers on a significant portion of their volume could risk undermining and sustainability of their businesses. It is worth noting that the operating profit to sales percentage reported by Electric Ireland (retail branch of ESB) was 2.8% in 2019.

The launch of the Marex Platform in 2019 was a welcome development in the market and one which we have actively engaged with. Our understanding is that to date volumes traded have been relatively low. While the Marex platform has a designated Market Maker, the market maker is free to determine the prices quoted. Our experience is that prices offered are frequently based on the cost of importing UK power (including the cost of FTRs and transmission losses) and as such can be uneconomic for pass through to the Irish Retail market in a lot of cases. A recent sample of prices showed OTC offer prices exceeding equivalent spot market prices (calculated using the DC formula) by circa 13%. Marex typically includes quotes for the pending four months and the next three

quarters. Hence one can in theory hedge nine months out. To date trading is focused on baseload only.

Clearly the large vertically integrated suppliers essentially look to manage their retail market trading exposures through their own generation capacity. Hence the commercial motivation for these generators to extensively participate in the OTC market is extremely limited. There is a risk that their strategic interests are best served as regards trading any long positions in the OTC market by offering prices which are higher than would prevail in a liquid competitive market.

So, while the Marex development is positive the OTC market provided (through the two platforms) has the following drawbacks from a supplier perspective:

- Volumes are limited
- Product durations are currently less than required by suppliers
- Vertically integrated suppliers can hedge internally and hence the generation business unit of such suppliers have little requirement or motivation to trade significant volumes
- Due to the relatively low number of market participants and the commercial position of the big four vertically integrated suppliers there is a lack of competition in the market and prices offered tend to be excessively high

Given the relatively small size of the Irish Wholesale market, the limited number of market participants, the absence of financial players and the concentration of generation capacity within four vertically integrated suppliers we do not believe that it will be possible for a liquid forward market with competitive prices to develop naturally. We therefore believe that some form of regulatory intervention is essential.

Financial Transmission Rights (FTRs)

Market participants can register with the Joint Allocation Office (JAO) which manages auctions for transmission capacity at European cross border interconnection points on behalf of the various Transmission System Operators. By purchasing an FTR and combining it with a contract for difference in the UK Wholesale market and a currency swop one can look to hedge trading exposures in the Irish market. The FTRs are auctioned by JAO through their trading platform. From the point of view of a supplier wishing to hedge an Irish retail market exposure this is an expensive option when the FTR and interconnector transmission losses are accounted for. The volumes available at auction are limited with auctions being held based on a published schedule. While the UK-Ireland interconnectors are an important part of the overall transmission system in terms of providing forward market liquidity at economic prices the benefits are modest.

What actions could be taken by market participants to create greater forward contracting opportunities? Is there scope for natural growth or innovation in the forwards market, and if so, how can this be progressed? Can renewable generators offer hedges?

The recent launch by Marex Spectron of their OTC trading platform has been a positive development. There is undoubtedly scope for further participants to join the platform and presumably for traded volumes to increase somewhat. However, we are clear that natural growth or

innovation will not solve the forward market liquidity problem or sufficiently ameliorate the significant adverse consequence of the current market failure.

Given the relatively small size of the Irish Wholesale market, the limited number of market participants, the absence of financial players and the concentration of generation capacity within four vertically integrated suppliers we do not believe that it will be possible for a liquid forward market with competitive prices to develop naturally. The four large vertically integrated suppliers are most likely reasonably happy with the status quo in that they do not rely on a well-functioning liquid forward market to manage their trading risk. Non-vertically integrated suppliers are clearly in a different position and are reliant on an effective and efficient Forwards Market. We therefore believe that some form of regulatory intervention is essential.

Renewable Generators

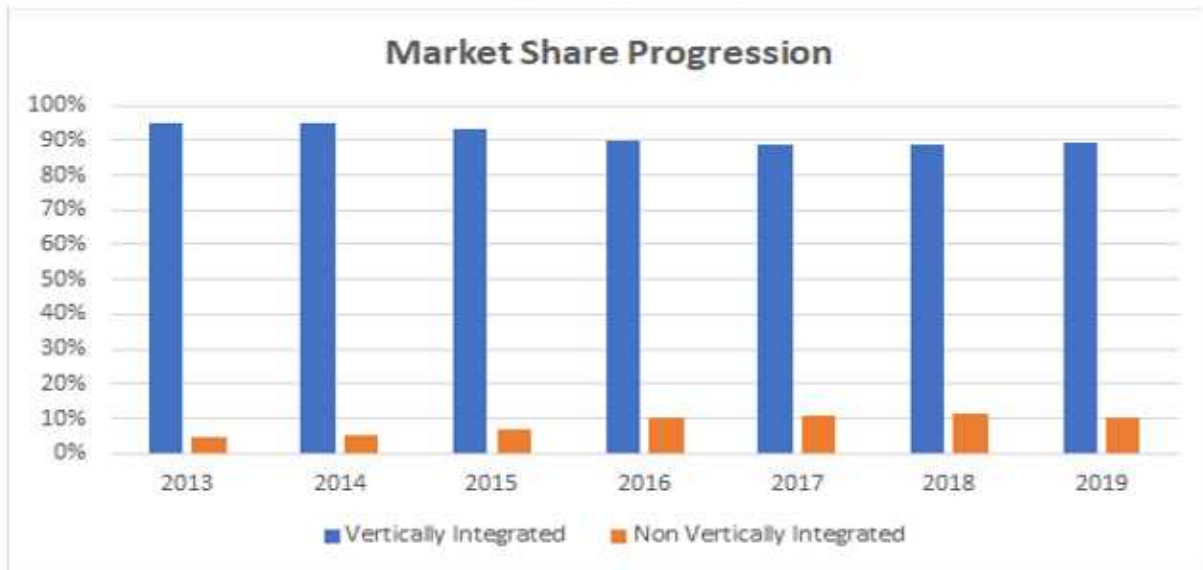
Under REFIT and RESS generators receive a guaranteed price and hence have no incentive to offer contracts in the market. In addition, the intermittent nature of wind output means that renewable generation is not a natural technology for backing off end customer fixed price commitments. Spot prices can be significantly higher on days when wind output is low and conversely spot prices will be lower on days when wind output is high. Hence should a supplier accept the volume risk the effectiveness of the hedge is reduced. Wind generators who have non refit generation may prefer to enter a PPA arrangement with one supplier rather than participate directly in the forwards market.

On what public interest grounds should the SEM Committee decide to intervene in the forwards market in the future? In the event that the SEM Committee decide to intervene in the future, what impacts should be considered prior to intervening in the market?

In its role as the Independent Energy Regulator the CRUs responsibilities include the protection of customers interests and the promotion of competition. A well-functioning Forwards Market is essential in ensuring that Retail Markets remain competitive and that customers interests are protected both in the short and long term. The well recognized deficiencies in the current system means:

- Customers paying higher prices than would otherwise be the case
- Restrictions on the product choice available to consumers
- Consumers being deprived of a sufficiently competitive market
- Restricted ability of non-vertically integrated suppliers to grow in the market
- High levels of market concentration
- Higher risk levels being carried by some suppliers with potential for liquidity and solvency concerns in the event of unexpected and sustained market volatility
- Risk of customers losing confidence in the integrity of the market

While several new non-vertically integrated suppliers have entered the market in recent years their growth has been restricted due to lack of forward market liquidity and the resulting difficulty in managing risk. Liquidity refers of course to both the availability of hedging products and the price of same. Market share progression over the last seven years has been as follows:



As can be seen from the above the Market Share of the Big Four has shown a very low level of change over many years with the ability of the newer non-vertically integrated suppliers to grow market share been held back due to the failure of the market to provide sufficient liquidity at economic prices.

We believe that it is in the interests of the consumer, existing market participants and the Regulatory Authorities that there be a place in the market for non-vertically integrated suppliers. Several non-vertically integrated suppliers have entered the market in recent years and have had a positive impact in the market by providing an alternative to the Big Four, offering competitive prices and promoting customer choice. However, due to the lack of Forward Market liquidity their ability to grow their business's has been hindered and they have been forced to either hedge at uneconomic prices or carry a level of trading risk that could threaten the sustainability of their business over time. We are aware of one new entrant who had significant concerns regarding the lack of economic forward liquidity and withdrew from the market.

Forward Market liquidity is as much about 'price' as 'volume'. Forward Market prices have a greater influence on end customer retail tariffs than spot prices. Where deficiencies and a lack of competition in Forward Markets result in excessive hedge premia than these higher costs are ultimately born by retail customers. It is in the interest of customers that all suppliers are afforded the opportunity to manage their trading risk at economically competitive prices.

The Retail value of the electricity market on the Island of Ireland is circa Euro 6.0 billion. It is important that the retail market remains competitive and be seen by the public as competitive. We have in recent years witnessed a situation in the UK where the public lost confidence and trust in the operation of the retail market. It is important that a similar situation does not develop in Ireland. In this context it is essential that the non-vertically integrated suppliers are supported so that they can sustain their existing business, provide competition, grow, and do this at an acceptable level of risk. Regulatory changes are required now to facilitate this.

We reject the RA's minded decision to again postpone any form of regulatory intervention. It is now four years since the original Consultation Paper was issued in June of 2016. In this time there has

been no substantial improvement in Forward Market liquidity. We believe that this market failure is extremely regrettable and call on the RA's to remedy the situation. It is clearly prudent and in the public interest that action is taken now.

In SEM-16-030 the RA's examined the volume of hedges traded through Irish Power CFDs. The combined figure (DC, OTC and PSO) was reported at 11.21 TWh compared to an All Island metered volume figure of 32.9 TWh. While since 2015 the total Market has increased to 35.4 TWh, the volume of electricity traded through Irish Power CfDs has fallen compared to 2015 . Hence the deficit in market liquidity has actually worsened over recent years. This deteriorating situation will be exacerbated further in 2020 as no PSO related CFD's will be available.

Liquidity in energy markets is frequently measured by looking at the churn within the market. This measure which looks at volumes (but not prices) is calculated by comparing the total traded volumes with the total annual metered volumes.

Indicative churn levels for a sample of European countries are as follows:



As can be observed Ireland compares very unfavorably with other neighbor states.

The difference between the offered and bid price (bid/offer spread) on the OTC market is typically around 4%. Again, this compares very unfavorably with typical spreads in the UK or Germany of around 0.75%.

At present the market structure is skewed in favor of the 'Big Four'. The large vertically integrated suppliers enjoy the following benefits:

- Can hedge their **volume** requirements internally
- Can transact at the **time** of their choosing
- Can transact for the **duration** required by their customers
- Can transact the required **profile**
- Can transact at **economic prices**
- Receive a DC allocation based on their historic **market dominance**
- Can offer volumes at **high prices** on OTC market from time to time at their **discretion**

In contrast to the above the newer non vertically integrated suppliers:

- Struggle to secure the **volumes** needed
- Cannot transact at the **time** of their choosing
- Contract **durations** do not always cover customer requirements
- Cannot match the **profile** of their customer volumes
- **Prices** available on OTC markets are generally **uneconomic**
- **DC** allocations are extremely **small**

There are a number of actions which the RAs could take to help remedy the existing market failure, help create a more level playing field and thereby protect the public interest. These would include the following:

- A Market Maker Obligation (MMO) on certain larger market participants to promote price discovery and improve market access for all participants
- A Forward Contract Sell Obligation (FCSO) on generators to supplement Directed Contract
- An amendment to the existing Directed Contract arrangements

The benefits of implementing the following changes would be substantial in ensuring a competitive retail market while the costs are minimal:

- a. Change the basis of allocating the DC volumes to suppliers in order to establish a more level playing field in the ability of vertically integrated and non-vertically integrated suppliers to manage their trading risk
- b. Place a Forward Contract Sell obligation on the ESB to sell additional forward contracts to the non-vertically integrated suppliers with a reserve price equal to the DC price. This would compensate for the disappearance of the PSO contracts and include volume currently sold on the OTC market
- c. Place a Forward Contract Sell obligation on non-government owned vertically integrated generators also

It is a pre-requisite of a competitive Retail Market that non-vertically integrated suppliers can grow and sustain their businesses. We recommend that the RA's consider each of the above and progress to implementation quickly.

We also recommend that the RA's adopt a Liquidity Policy which sets out the objectives regarding liquidity. These could include:

- Ensure that a range of hedging products are available to support suppliers in effectively managing their trading exposures

- Promote an effective Forwards Market so that all Suppliers can meet their hedging requirements on an equal basis
- Supports robust price references that are widely available to all market participants

In addition to taking positive action to improve liquidity we believe that there is a need establish Liquidity Indicators, to gather the relevant data and publish the results on a quarterly basis.

The SEM Market Monitoring Unit (MMU) publishes quarterly performance data across a range of key areas but does not report on the effectiveness or efficiency of the forwards Market. Areas reported on include:

- Volumes and prices in the DAM
- Volume and prices in the ID Market
- Volumes and prices in the Balancing Market
- Inter-connector Flows
- Fuel Mix
- DC Contracts

As we know the DC contract volume equates to about 15% of the All Island annual metered volumes. Hence as regard the Forward market we are reporting on 15% of the market and not reporting on the other potential 85%. Prices in Forward Markets impact directly on consumer prices and hence an appropriate monitoring regime would be beneficial to consumers all and all market participants. One way of doing this would be to require that all Forward Market transactions, including those internal to vertically integrated suppliers, be centrally logged and collated.



