

AGGREGATION IN THE SEM

SSE Response



INTRODUCTION

SSE welcomes the opportunity to comment on *SEM-20-042 Aggregation in the SEM*. For the avoidance of doubt, this is a non-confidential response.

SSE is a large generator and supplier operating circa 2,000MW of generation in the all-island centrally dispatched SEM. We note the principle under the relevant EU legislation EU 2019/943 and 2019/944 signals the intention of aggregation for distributed demand and supply to provide an important contribution to the efficiency of a market.

We note the proposed extension of Intermediary Arrangements in the parallel SEM-20-033 to implement the obligations for aggregation within the SEM. The mechanism for Intermediary Arrangements facilitates smaller players and those of specific, novel or alternative technologies to access the market. Intermediaries such as the current ones in the market, are generally understood to exist in order to facilitate PPAs. An important consideration when Intermediary Arrangements were developed, was to avoid market power issues. These functions of Intermediaries serve an important function that will be necessary to retain, in addition to aggregation. These are also different functions to aggregators and therefore we do not see Intermediaries as a suitable vehicle to achieve aggregation in the market.

We consider that for aggregation to properly function, the system needs to facilitate net trading, correct flows into settlements, and portfolio trading to optimise the potential for aggregation to meet the needs of the market at any specific time. In a market where market participants are forced to continue with unit-level bidding in order to ensure we continue to receive REFIT payments, this makes net trading difficult. Net trading is the cornerstone of introducing aggregation into trading, in whatever form suitable.

Do the current market functions of Intermediaries and DSUs fulfil the requirements of an Aggregator as defined in the CEP?

We don't feel that the use of these market participants goes far enough in delivering the spirit and definition of an aggregator under EU 2019/944 and EU 2019/943. Below are relevant extracts from both pieces of legislation:

"Customers should be allowed to make full use of the advantages of aggregation of production and supply over larger regions and benefit from cross-border competition. Market participants engaged in aggregation are likely to play an important role as intermediaries between customer groups and the market. Member States should be free to choose the appropriate implementation model and approach to governance for independent aggregation while respecting the general principles set out in this Directive. Such a model or approach could include choosing market-based or regulatory principles which provide solutions to comply with this Directive, such as models where imbalances are settled or where perimeter corrections are introduced. The chosen model should contain transparent and fair rules to allow independent aggregators to fulfil their roles as intermediaries and to ensure that the final customer adequately benefits from their activities. Products should be defined on all electricity markets, including ancillary services and capacity markets, so as to encourage the participation of demand response."

“..market participation of final customers and small enterprises shall be enabled by aggregation of generation from multiple power-generating facilities or load from multiple demand response facilities to provide joint offers on the electricity market and be jointly operated in the electricity system, in accordance with Union competition law;”

Aggregation is understood to encompass both demand and supply, as well as independent aggregators. None of these would be facilitated by an expansion of Intermediaries or DSUs. We do note the reference to aggregators performing an intermediary role, in the phrasing of the legislation above; however as mentioned, Intermediaries in the SEM already perform a specific function within a specific framework. SSE considers that reference to intermediaries is in place of terms like “go-between” or “middle-man”, not an indication that existing Intermediary Arrangements are directly suitable.

Expanding the two existing categories assumes that all Intermediaries and DSUs would wish to be aggregators, which may not be the case given the current market structure weighted towards unit-level bidding. Furthermore, it would require that anyone wishing to avail of an aggregator would require for instance to engage with an Intermediary. This assumes that third parties would not be Party’s to the Code in the first case. Finally, use of DSUs and Intermediaries does not resolve the other areas of aggregation referenced at an EU level, which involves independent aggregators and aggregation of supply. As outlined below, a separate category of aggregator could allow for the delivery of both demand and supply aggregation within the same category.

Finally, we would ask the RAs to clarify why Assetless Units (ASUs) have not featured in the consideration of what parties fulfil some degree of aggregation. The concept of an aggregator as per Clean Energy Package and the associated Directive 2019/944, is comparable to the facility provided by ASUs in the market; which are defined as:

a notional unit that represents a Participant’s activities in the Balancing Market and that is not a physical Generator, an item of Dispatchable plant or a Supplier Unit.

Furthermore, there already exists in the market, the facility to register an aggregator unit, which is defined as:

means an Aggregated Generator registered by a Party in compliance with any of the relevant provisions of the applicable Grid Code.

The concept of aggregators as those that aggregate volumes but do not physical generate themselves, most closely aligns with what we would consider the role of aggregators to be. Aggregators and ASUs provide a trading facility to a portfolio of clients or customers in the market. Aggregators & ASUs also do not own any specific generation or supply themselves, but contract these at scale to be able to leverage the volume in their portfolio. SSE favours the use of ASUs as a more neutral category than AGUs which are clearly generator only units and is a more suitable category compared to Intermediaries and DSUs.

Therefore, we would welcome clarity as to why ASUs are not suitable for the task of establishing aggregation in the market in a non-discriminatory and transparent manner, that takes account of aggregation for supply and demand.

Should a formal definition of an Aggregator be developed which may or may not encapsulate these existing market participants for the purpose of developing an entity to fulfil aggregation functions which meets the criteria of an Independent Aggregator as defined in the CEP? Are there updates which could be made to the existing market structure which would facilitate participation by Aggregators in a non-discriminatory manner?

We would agree that a formal definition of an Aggregator should be developed. We are not in favour of the use of Intermediaries or DSUs as a vehicle for what is already in the market, i.e. ASUs or AGUs. We consider that DSUs and Intermediaries do not go far enough in providing what is intended under the Clean Energy Package and separately perform useful functions in their own right.

In order for aggregators to have the same rights and oversight as other market participants, we would be in favour of aggregators being separately registered and licenced participants in the market. We note that AGUs & ASUs already exist as a category in the market.

Particularly ASUs could facilitate both supply and demand aggregators, as well as independent aggregators as it prevents these Parties needing to already be Intermediaries or DSUs. Furthermore, a single category could allow for the registration of multiple sites behind the single unit registration (within certain limits the RAs can set). This ability to aggregate the volume behind the generator unit category, will get around the existing market design which does not facilitate net trading, or in portfolio trading. cursory inspection would suggest that both of these activities could be facilitated in the back-office operations of a unit that can register a combined volume behind it.

The lessons from the UK may be relevant in this regard, since Ofgem understood that a separate registered Party in the market is necessary to facilitate aggregation. It is also useful to reference that Intermediaries and ASUs share the commonality that the Party would hold an existing licence, either Generation or Supply. This may be a useful consideration when considering how ASUs/AGUs could be licenced in the market to allow for regulatory oversight.

Do these market participants (Intermediaries and DSUs) have fair and non-discriminatory access to the SEM?

These market participants have access to the SEM insofar as their licences and registration in the market allow. However, we would have concerns that in terms of the intent under the Clean Energy Package for Member States to be able to create the necessary frameworks for regulatory oversight of aggregators, DSUs and Intermediaries would not have specific or direct regulatory oversight of these specific functions under their existing Supply or Generation licences. This is a consideration for whatever avenue is chosen to facilitate aggregators, since clarifying and facilitating the participation of AGUs or ASUs in the market, would still require specific licence conditions to existing licenses and likely relevant Code modifications.

Are there updates which could be made to the existing market structure which would facilitate participation by Aggregators in a non-discriminatory manner?

The current market structure coupled with the support framework intended for renewables, and the prevailing non-firm connection policy all necessitate a unit-based trading framework in the SEM. The intent of aggregation would assume net trading and trading within portfolio to optimise aggregated volumes and respond to specific changes in the market. Therefore, changes to facilitate net trading and in portfolio trading must be considered if seeking to provide aggregation in the fullest sense indicated under the Clean Energy Package. In addition, were non-firm connections made firm, this could reduce some of risk that requires market participants to unit-level trade.

Country examples of aggregation

Several country examples have been provided in the consultation response to provide an insight into other methods of implementation without market structures.

We decided it was valuable to compare these examples with what is possible in the SEM:

1. France: this example referenced a specific market mechanism to facilitate aggregation. We would be in favour of such an option if the SEM was not still in a state of stabilisation and the current lead time for market design changes tends to be in terms of years, as per the systems provider. This would suggest that a new mechanism specifically for aggregation would take considerable development time.
2. Germany: this market allows for aggregators to pool multiple renewable generation loads to submit bids into the market. This is not possible in our current unit-based traded market however it would be a suitable template to compare with SSE's recommendation to use a single registered ASU that can pool loads behind it. It would not be as flexible perhaps, but should help to facilitate a comparative approach given the constraints of the SEM.
3. Finland: this is a notable pilot being monitored around the world. However, it is still a pilot and results don't appear yet forthcoming. Therefore, insofar as lending any suggestions of what could be adopted in the SEM, it does not provide much insights.
4. UK: we have referenced this example above as it demonstrates an understanding that aggregators need specific treatment to facilitate their operation and ensure appropriate and transparent oversight, which can be afforded if they are grouped into a separate market category. We would assume that several aggregators could also be Intermediaries or DSUs, but that not all DSUs or Intermediaries may wish to aggregate or may not have a sufficiently large portfolio to effectively aggregate. Currently, the market signals in the SEM necessitate unit-based trading without in-portfolio optimisation, which would not encourage market participants to develop large portfolios of third-party volumes for trading purposes, except as a product of PPAs.

Portfolio trading

As mentioned, in-portfolio optimisation is currently not possible in the market. The M7 platform does not have this facility activated. Where portfolio trading is legitimately engaged in the market currently, it appears as a market distortion; a self-trade. Self-trades are not inherently a market distortion, but in such a small market, or if self-trades increased in volume; this could provide a concerning degree of distortion.

This issue can be addressed through the OTC functionality, which will allow for in-portfolio trading without the risk of distorting the market. It is an important consideration that if aggregation is introduced without this current issue being remedied, the degree of market distortion (i.e. in-portfolio trades), could be far greater.

As per the requirements of REMIT, the absence of this functionality could introduce a compliance risk on the M7 and could in fact disincentivise true aggregation activities in the market, given the degree of penalties possible for a confirmed breach. There are examples where portfolio trading is facilitated in other markets, whilst remaining in compliance with REMIT, such as the Nordpool exchange which has created a specific flag to facilitate self-trades¹. We would encourage to SEMC to consider this example or interrogate the rationale of why the OTC functionality, which was tested prior to SEM go-live, was not then provided to the market.

EU zone trade

At this moment, we are advised that there is no final position on whether the SEM is already compliant with the Electricity Balancing Guidelines (EBGL). We also do not have clarity on the 15 min Imbalance Settlement Price proposal from the EU, which Ofgem has secured an exemption from for the GB market. Finally, given the impending Brexit event, there is a strong likelihood that the Day-Ahead Market will be decoupled, and the SEM will no longer have access to Euphemia.

Therefore, the establishment of aggregation in compliance with the Clean Energy Package, in the absence of access to the EU market will require clarity in order to understand how much can be implemented. Whether or not the SEM is forced to move to a 15 min ISP will also have a bearing on how aggregation is implemented and what the overall outcome of aggregation is hoped to be; i.e. aggregation to assist with meeting the 70% renewables targets and new ROCOF limits for instance, and/or to rather achieve aggregation for a cross-border participation that will only again be possible when the Celtic interconnector is operational. We have been pushing for clarity on all the matters above and feel that the implementation of aggregation again necessitates a request for an update and clarity on these matters. All of these considerations need to be reviewed in order to achieve implementation of aggregation.

What form of regulatory oversight of Aggregators is most likely to ensure the protection of small-scale market participants involved in aggregation (e.g. Contractual Arrangements, Aggregator Licences, updated Forms of Authority, etc.

As mentioned above, on the basis that ASUs, AGUs or a separate new market category provides better categories to facilitate aggregation, we would expect licensing and contractual arrangements to be

¹ <https://www.nordpoolgroup.com/trading/intraday-trading/release-notes/>

facilitated to ensure appropriate regulatory oversight and visibility of activities. We understand that licensing can prove difficult, given it will involve a change in legislation. However, as is demonstrated in other established market categories like ASUs, a Party to the Code with an existing Supply or Generation licence, with suitable licence conditions inserted for the purposes of oversight regarding aggregator activities; could be a viable approach.

Do you feel that the current framework for Intermediaries could be applied in future aggregation frameworks and is compliant with Article 17 of the Electricity?

See comments throughout the body of this response.

Are there changes that could be made to the existing DSU framework that facilitates future frameworks for aggregation for demand-side response?

See comments throughout the body of this response.

What other considerations should the RAs focus on prior to the implementation of Article 17 of the Directive?

Article 17 relates to demand response through aggregation. We have provided some high-levels thoughts in our response above regarding market structures that would be relevant considerations for implementation of Article 17 as well, i.e. EBGL. At this time, the market would not be capable of providing this without the provision for net trading or registration of volumes of demand behind a market category. There needs to be clarity on market structures to facilitate aggregation as well as the market categories that aggregators can register under.

We agree that this aspect of achieving aggregation will require a retail focus and note in the relevant Directive, associated charges relating to switching etc. This aspect of achieving aggregation would need to be developed prior to being able to provide demand response through aggregation. We would welcome clarity on how and when this will be consulted on to progress its development.

Finally, it is worth noting that Article 17 involves the need for these new parties, i.e. aggregators, to be balance responsible like all other parties. We note the SEMC confirmed that the market was currently balance responsible in SEM-20-027. However, this did not appear to include consideration of whether the market is balanced responsible for extended or new market categories to facilitate aggregation. We would consider clarity on how these parties can be ensured to be balance responsible, must be forthcoming prior to implementation of Article 17.