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Response to Consultation Paper on Aggregation

(SEM-20-042)

Powerhouse Generation (PHG) welcomes the opportunity to respond to the SEM Committee's *Consultation Paper on Aggregation* (SEM-20-042) and trust that you will consider it in your deliberations.

The consultation seeks to review the relevant provisions of Regulation EU/2019/943 and Directive EU/2019/944 of the Clean Energy Package (the "Regulation" and "Directive") respectively with respect to the rights and obligations of entities performing aggregation in wholesale and retail electricity markets.

Overview

PHG notes that the many elements of the Clean Energy Package (CEP) are in legal effect now (Regulation EU/2019/943, the "Regulation"), and that other elements are to be transposed into national legislation, with associated regulations and administrative provisions by 31st December 2020 (Directive EU/2019/944, the "Directive"). It would appear that Ireland and Northern Ireland are not in full compliance with the Regulation with respect to elements relating to non-discrimination for aggregators and are highly unlikely to be in full compliance with the Directive by the end of this year.

It is important to prioritise the rectification of key issues of current discrimination and the most important elements of the CEP. PHG believes that the following three areas are all highly interrelated and should be progressed as a matter of priority:

- Energy payments for DSUs. The non-payment for balancing energy delivery from DSUs is a clear discriminatory exclusion from an entire market. It also remains an outstanding requirement for State Aid Compliance for the Capacity Remuneration Mechanism.
- Balance responsibility for DSUs. Intrinsic to the earning of DSU energy payments is the concurrent requirement for balance responsibility as required under the Directive.
- Access to relevant data on an equivalent basis to suppliers to assist with said balance responsibility. This is a jurisdictional matter related to access to metering data and impacts complex systems and programmes, such as the National Smart Metering Programme in Ireland.

PHG also have a concern that, given the large range of issues to be addressed to resolve existing and imminent non-compliance with all Network Codes and the Clean Energy Package, this will lead to a natural tendency to downplay elements of material non-compliance for (currently) smaller elements of the industry, such as aggregators providing Demand Side Flexibility (DSF).

The DRAI, which PHG is a member, have written to the SEM Committee and approached the Regulatory Authorities regularly over the years to deal with issues of clear discrimination in the overall electricity market design. This has included non-payment for energy response to DSU, along with many other technical issues which are set out in the body of this response. As the consultation proposes that these matters will reach a decision in Quarter 3 of 2020, PHG and the DRAI wish to confirm that this decision will not guillotine discussion of these issues.

Consultation questions to which our detailed response below pertains are noted within each section.

Defining the Aggregator

(**Question 1**) Intermediaries do not aggregate their customers – i.e. combine their contracted customers into a single market unit[1]. Indeed, the Single Electricity Market design with its mandatory unit-per-meter balancing market registration prohibits the aggregation of any generator greater than 10MW.

Suppliers, however, when contracting with smaller generation do aggregate those generators with their demand consumers. Suppliers, not Intermediaries, should also be considered aggregators.

As stated in the consultation paper, the CEP defines 'Aggregation' and further defines 'Independent Aggregator'. With the Independent Aggregator being referenced to a market participant that is not affiliated to the customers supplier, then de facto a 'dependent aggregator' exists.

(Question 2) PHG agrees that Demand Side Units (DSUs) and Aggregated Generator Units (AGUs) meet the definition of "aggregators" within the context of the Regulation and Directive.

[1] There are limited opportunities for Intermediaries to aggregate certain classes of generator in the Capacity Market, but this does not include the right to aggregate generators in the energy markets.

We have some further other comments regarding the subcategorisation of aggregator activities.

Independent Aggregator: While demand supply is a form of aggregation, the Directive in makes distinction between the separate trade of electricity services different to retail supply (see Article 13, EU/2019/944 for an example). We interpret those electricity services to be:

- The sale of demand side flexibility[2] (DSF) by a consumer to an aggregator (facilitating participation in Capacity Remuneration Mechanism and System Services); and/or
- The sale of a generator's energy at the consumer's site to the aggregator;

As a result, whenever any of these services are managed for a final customer by an aggregator who is not the retail supplier to the site, the management of these services are provided by an *independent aggregator*.

Market Segment: Furthermore, it is noteworthy that traditionally DSUs and AGUs have engaged with experienced industrial and commercial customers in a business to business, or "B2B", environment (AGUs purchasing energy, AGUs and DSUs participating in the balancing mechanism, capacity mechanism and ancillary services with DSF). Suppliers engage with all levels of customers, including those down to domestic level, particularly in Northern Ireland with the purchase of generated power from small distributed generation. It is important when considering any future regulation that it should be capable of scaling the necessary and sufficient protections for different classes of consumer.

(Question 3) PHG, nevertheless, does not particularly see the relevance of creating a new definition for aggregator (or independent aggregator) for the purposes of ensuring compliance with the Regulation or Directive. For example, the Grid Code in both jurisdictions currently does have a definition for Aggregator, which is essentially is either the operator of an AGU or DSU. Since a supplier also effectively engages in aggregation, creation of a further definition does not necessarily create any further clarity.

What is important is that once the entities that are engaged in aggregation are clarified, that they – and their customers – have non-discriminatory access to energy, capacity and DS3 markets along with technologically appropriate obligations equivalent to non-aggregated market participants. The only circumstance where the PHG sees any merit to the creation of a new "aggregator" definition is if the SEM Committee are of the view that such activities are separately licensed under a new licence definition. If such a definition were to be created, it is important that it is consistent across all market

[2] Including flexibility from a generator in an AGU.

codes and contracts[3]. Please, however, note that the creation of a new aggregation licence is not our preferred position for the reasons given below.

Facilitation of Market Participation

(**Question 4**) As Intermediaries are not engaged in aggregation, and Intermediaries are treated in effect like any other market participant, we believe that questions of discrimination with regard to Intermediaries are not relevant.

(Question 5) The DRAI, which PHG is a member, has regularly pointed out issues in relation to the discriminatory treatment of DSUs and AGUs relative to other market participants, across energy markets, system operation and testing, capacity markets, and DS3 system services. There is a growing concern regarding the scope, scale, and number of industry rules which are cumulatively impacting the sustainability of demand side flexibility (DSF) in the SEM, those rules being more designed for conventional market participants.

The Demand Side industry has engaged with the Regulatory Authorities and System Operators through regular bilateral meetings, attempting to inform, coordinate, and support better integration of DSF within the wholesale market, foremost of these being the treatment of energy payments for DSUs.

These existing issues will soon be supplemented with further requirements from the Directive, which will necessitate a plan to prioritise and deliver on all necessary and sufficient changes.

Three clear issues related to market access are:

- DSUs, while they can sign up to the energy market, do not receive energy payments and this is a clear issue of discrimination when it comes to market access. It is of high importance that DSUs are subject to a full suite of market pricing signals (as other unit types are), which will encourage the higher levels of participation (availability) that is generally desired in the market. PHG is strongly committed to working with the RAs / TSOs to maximise the performance of flexible demand on the system, and believes the emphasis needs to be on implementing appropriate market structures to encourage high levels of availability, rather than additional punitive measures (with significant associated complexity). Sole reliance on penalties is not an appropriate alternative to getting the market signals right to incentivise maximal performance from all unit types.

  There is therefore currently no market price incentive for DSUs to increase availability beyond their real time load-following obligated capacity quantity. PHG has awaited the enduring state-aid solution (giving DSUs equitable access to energy payments vs. other unit types) is progressed without delay, however there has been limited progress to date. Such an enduring solution, if designed and implemented correctly, will lead to the appropriate market

[3] "Autoproducer" for example has differing definitions in the T&SC, Grid Code, jurisdictional connection policy, TUoS charging and DUoS charging regimes. A definition of "aggregator", if it were to be created, should be consistent across both jurisdictions across all relevant codes and regulated contracts.

exposures and benefits that will incentivise high performing DSUs and will bring the associated benefits of incentivising higher availability, better forecasting, and overall improved market participation.

- DSUs and AGUs have long processes reliant on TSO Grid Code testing resources to incorporate new sites into their aggregated business, which can lead to issues in terms of meeting timelines in the capacity market in particular.
- Furthermore, there are barriers to aggregation itself in the market. It is impossible to aggregate generators greater than 10MW into an AGU or DSU. This was acknowledged as an issue in the Ireland plan for compliance with the CEP provided to the EU Commission, but was subsumed into the wider issues of the de minimis threshold as a necessary tool to manage balance responsibility (SEM-20-027). The two issues, however, are separable as the consultation acknowledges, and the outstanding issue – being unable to aggregate demand response greater than 10MW into a DSU – remains a practical issue. DSUs and AGUs manage their participation in the Capacity Market by aggregating risk across several sites. If a DSU qualifies new capacity for the Capacity Market, but has to place response greater than 10MW into a single Unit, any commissioning issue with that single unit can lead to exclusion in the CRM and draw-down of the Performance Bond. Furthermore, if new opportunities arise greater than 10MW on a single site, that opportunity cannot be used to offset performance issues arising with other sites already aggregated within a DSU.

Market Access in terms of Regulatory Barriers: As part of Question 5, the consultation also requests feedback on the nature of the regulatory requirements for aggregators to become market participants.

In relation to DSUs in Ireland, the requirements to have a supply licence currently operates reasonably well, given the low level of operational overhead that the non-operational[4] licence requirements entail.

There are no operational AGUs in Ireland. At this moment in time, it is uncertain what, if any, licensing regime might be required.

In Northern Ireland, DSUs are licensed under a shortened Supply Licence and Generation Licence combination, which in combination are referred to as a "DSU Licence" (irrespective of whether they are also undertaking generation or supply activities). In Northern Ireland (unlike in Ireland) there is regulatory discretion in removing certain conditions from a standard licence prior to granting it to a market participant. This Northern Ireland structure currently operates acceptably, with the more onerous Northern Ireland retail requirements removed from the "DSU Licence" in particular.

[4] Non-operational not in that the licence conditions are not in force, but that they have no practical effect due to the lack of retail activities to which those conditions relate.

AGUs in Northern Ireland in contrast (noting that AGUs operators also happen to have DSU licences as well) have a signed contractual agreement with the Utility Regulator setting out requirements such as compliance with the Balancing Market Principles Code of Practice.

The Trading & Settlement Code notes that Regulatory consent is required for a DSU or AGU to participate in the Balancing Market. Regulatory consent is only provided when the aggregator meets the jurisdictional licensing / contractual requirement and these structures, while different in each jurisdiction, have functioned adequately. They have provided the Regulatory Authorities with sufficient oversight of standard market obligations (compliance with Grid Code, T&SC, Balancing Market Principles Code of Practice, etc.).

A specific licence for aggregation would presumably require changes to national legislation in order for the Regulatory Authorities to issue such a new form of licence, and for it to have meaning

Finally, while there could be a suite of regulator-aggregator contracts developed which would be required as a prerequisite for market participation (in line with the AGU contract in Northern Ireland), it would create a further suite of documents to be maintained, with likely different control processes than that for the licenses themselves – in itself introducing a different form of discrimination relative to licensed parties.

Overall, noting the "gap" in relation to AGUs in Ireland – where the requirement for a standard generator or supply licence would be equivalently as acceptable as the supply licence requirement for a DSU, the current framework is fit for purpose.

(**Question 6**) In parallel with technical issues and the regulatory structure of market access are the issues of the operational rules themselves (with the line blurred somewhat for energy payments where one can accede to the market, but can't earn energy payments as a DSU).

Sample outstanding questions include:

- Is there flexibility in the registrations so aggregators can reflect the value they give to the system across energy, capacity and DS3 (otherwise refered to as *Joint Market Registration*)?
- Does the capacity market force excessive T-4 participation requiring long-term contracts and/or business plans with customers, due to the lack of certainty around T-1 auction volumes? This is a strong concern for PHG, insofar as T-4 commitments may be undermined by contract termination and switching (Electricity Directive, Article 12)
- Are the rules for the treatment of aggregated entities in supplying DS3 System Services insufficiently rewarding the value given due to expectation that all value should be delivered equivalent to a single-unit-single meter site?

Pragmatic issues also arise with the appropriateness of Grid Code required declaration methodologies and testing regimes for aggregated entities.

These issues remain unresolved despite provisions relating to DSF in the Regulation and the Directive. They support non-discrimination of demand response taking account the different technical

capability of market participants, which contrasts poorly with the situation on the ground. Two particular provisions are highlighted (emphasis added). Rules defining obligations and rewards should be cognisant of a market participant's technical capability. Applying the same rule to every participant does not meet the standard of non-discrimination.

Regulation EU 2019/943. Article 6, 1 (a). *"ensure effective non-discrimination between market participants taking account of the different technical needs of the electricity system and the different technical capabilities of generation sources, energy storage and demand response;"*

Directive EU 2019/944. Article 17, 2. *"Member States shall ensure that transmission system operators and distribution system operators, when procuring ancillary services, treat market participants engaged in the aggregation of demand response in a non-discriminatory manner alongside producers on the basis of their technical capabilities."*

Other issues of clear discrimination include:

- Locational signals (whether in the Capacity Mechanism or the System Services design) require all the providers to be included in the one unit, yet the requirement to have similar technical characteristics in the same DSU in the energy market can limit an aggregators ability to do so (see our response to the current consultation on *Implementation of Locational Scarcity Scalars for System Services* by means of a specific example).
- Larger dispatchable/controllable generators in general have no effective aggregation across all market timeframes, requiring each Generator Unit in the Balancing Market to be also represented by a single (i.e. non-aggregated) Trading Unit in the *ex-ante* markets if they wish to be compensated for firm constraints. Aggregation for wind generation was proposed as part of the original integrated SEM Committee design (see Figure 1, SEM-14-085a), but such proposed aggregation was not implemented. While the TSO needs to know the location of each separately dispatchable/controllable large generator to manage constraints for example, this should not necessitate taking a single position in the ex ante market to support a trader's portfolio of generation.
- Suppliers acting as aggregators are also at a disadvantage relative to some market participants. All control instructions sent to firm generators which are less than 10MW and are not registered as a unique market Generator Unit results in a trading imbalance for the aggregating supplier. In contrast, if such generators were registered in the market as a Generator Unit, they would be compensated for such constraint at their submitted commercial offer price.

In summary, there are a mixture of subtle and overt discriminatory issues embedded with the very market rules, associated standards, and ancillary activities which mitigate against DSUs and AGUs (and to a lesser extent suppliers, or portfolio managers) as aggregators.

Updates will be necessary not only to market structures, but also to the Grid Code, Capacity Market registration, system services contracting and delivery technical operational dispatch and availability declaration rules, and so forth, to achieve a fully non-discriminatory system. Given the level of detail presented in the consultation paper, it would be inappropriate to attempt a full review of the market in our response. We hope that we have highlighted some of the issues by means of example. A full review would need to be cognisant of other important changes ongoing around the Clean Energy Package implementation.

PHG continues to recommend a full programme of work to address these issues in a holistic manner. We also note as per the **Overview** section above, there is unlikely to be sufficient time to deliver all of these requirements by the required deadline. This will require a prioritised schedule of work. We have emphasised energy payments, balance responsibility, and access to adequate data to ensure balance responsibility as our area of preferred prioritisation.

(**Question 7**) There may be a need for a greater level of oversight, however, beyond the requirements of the CEP for domestic customers. These should not apply to the B2B contracting sector. The most obvious analogue for the protection of such customers would be the regulator monitoring compliance with a document such as the Supplier Handbook (in Ireland).

Future Development on Aggregation

(**Question 8**) PHG are of the view that Intermediaries are not aggregators, and we note that they have their own separate consultation process (SEM-20-033) looking at issues in terms of who may become an Intermediary for whom. PHG however understands that the CEP has a set of definitions which this consultation is attempting to address and align with the terminology currently used in the SEM, Grid Code, etc. It would be suitable to see if other jurisdictions have participant similar to Intermediaries and how they are defined there.

(Question 9) There are currently thousands of sites in Ireland and particularly in Northern Ireland which are availing of aggregation services of some form or another. Some 700MW of Demand Side Response is awarded in the Capacity Market, supported over hundreds of sites, there is roughly double that capacity over several thousand sites aggregated by suppliers.

PHG believes that the current "framework" should be sufficient for the purposes of ensuring aggregators rights are delivered, and their responsibilities are met.

If the SEM Committee is convinced that the incremental act of aggregation (beyond actual generation or supply activities) should be a licensable activity, we are not against that concept *per se*, but notes that it may require legislative changes in each jurisdiction to give legal standing to the licence. It may also require changes to existing supply licences.

Importance of implementing regulations in a coordinated, balanced manner: PHG sees no presented evidence for the need for greater regulatory oversight of these arrangements for industrial and commercial customers based on the operation of the industry to date, but notes nevertheless that there are legal requirements for Member States within the CEP to monitor and facilitate certain aspects of these relationships, as per Articles 12 and 13 of the Directive. One example of such a requirement is that *"a customer wishing to switch suppliers or market participants engaged in aggregation, while respecting contractual conditions, is entitled to such a switch within a maximum of three weeks from the date of the request"*.

It is important that such new obligations and responsibilities of aggregators (along with the obligations of the market to support same) under the Regulation (e.g. balance responsibility) come in parallel with the protections and rights afforded under Article 17 (e.g. access to data), and resolution of key discriminatory issues (e.g. lack of access to energy payments for DSUs).

We recognise the current legislative context of SEM Committee and jurisdictional Regulatory Authority matters and the decision-making processes required. The consultation itself notes that the SEM Committee are discussing matters which "*are expected to be dealt with jurisdictionally*". PHG therefore requests a clear overall plan from the Regulatory Authorities in general – particularly within the context of Brexit – detailing where all SEM Matters, jurisdictional issues, and issues falling in-between in relation to aggregation are going to be considered to ensure all aspects are captured.

Importance of implemented regulation being limited to that necessary and sufficient for the market segment: PHG notes that customers involved in aggregation represent a very diverse range of sites with very different commercial needs (ROC, REFIT, merchant, domestic, commercial, industrial, generation, demand response, HE CHP, capacity market participation, DS3 system services, renewable guarantees of origin etc.). Market oversight rules would need to be impact assessed against all such customer types to ensure that no perverse outcomes arose which unduly restricted transactions between customers and their aggregators. Different treatment for domestic customers relative to industrial and commercial customers is likely to be appropriate.

PHG are of the view that such oversight should be for all forms of aggregation, not just DSUs and AGUs, i.e. supplier PPAs with small generators. Furthermore, the oversight must also extend to those facilitating the aggregation market, e.g. the TSOs (in effecting the movement of a demand site between aggregators within three weeks) and DSOs as retail market operators (allowing for the timely provision of customer data to aggregators on the same basis as that available to suppliers), etc.

(**Question 10**) Prior to the implementation of Article 17 of the Directive (or indeed any other element of the Directive or resolution of existing discriminatory issues identified in the answers to Question 5 and Question 6 above), a full scoping exercise of all the existing issues needs to be performed to meet the requirements of the Regulation, along with a full enumeration of all the requirements of the Directive.

We believe that some existing discriminatory elements need to be resolved first, namely energy payments to DSUs, the corresponding balance responsibility, and access to sufficient data to support the requirements for balance responsibility.

Until the wholesale position where the costs and revenues for aggregators (independent or not) and impacted suppliers is resolved, it is premature to regulate the roles of all market participants, their bilateral interactions, or any aspect of their engagement with their customer.

On behalf of PHG I hope that you find our response helpful and constructive, and we look forward to hearing from you in due course.

Yours sincerely,

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