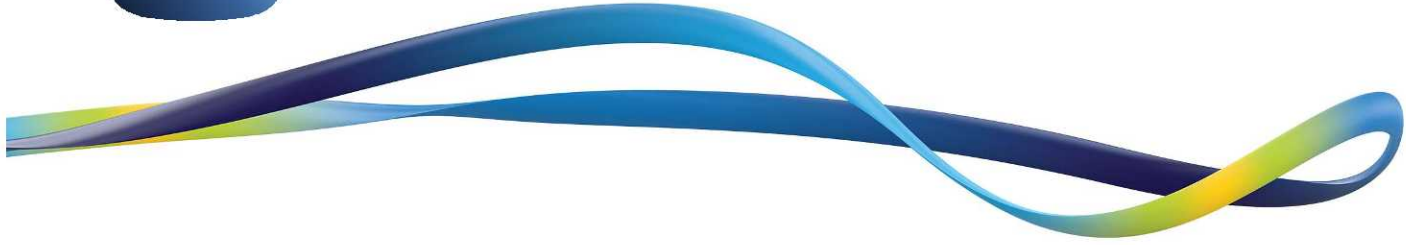




NETWORKS



**RESPONSE TO CONSULTATION SEM-20-028 -
IMPLEMENTATION OF REGULATION 2019/943
IN RELATION TO DISPATCH AND
REDISPATCH**

Submitted to the Regulatory Authorities on 24th June 2020

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1. Introduction

Thank you for affording us the opportunity to contribute to this consultation process. ESB Networks believes that this is an important and timely consultation from several perspectives. Decisions regarding the implementation of this regulation have the potential to have long lasting and far reaching impacts on the ability of Ireland to continue to deliver on its commitment to decarbonisation.

We have structured this response by providing an overview of the role of ESB networks and how this will change in coming years, then providing some initial observations relating to the consultation generally and then finally providing specific responses to relevant consultation questions.

2. Role of ESB Networks

We are responding to this consultation on behalf of the ESB Networks DAC Distribution System Operator (DSO) function, and also the Transmission Asset Owner (TAO) and Distribution Asset Owner (DAO) functions of ESB, which are managed by ESB Networks DAC. For ease of reference the term 'ESB Networks' is used collectively in this response to describe these three functions (unless specified otherwise).

As distribution system operator (DSO) and manager of the distribution asset owner (DAO) and transmission asset owner (TAO), ESB Networks works to meet the needs of all Irish electricity customers, providing universal affordable access to the electricity system, and delivering and managing the performance of a system of almost 155,000 km of overhead networks; over 23,000 km of underground cables; over 646 high voltage substations; significant amounts of connected generation, including over 4.5 GW of renewable generation connected to the Distribution and Transmission systems; approaching 2.3 million demand customers; and now several thousand “active customers” – domestic premises with microgeneration, a rapidly increasing number.

ESB Networks is committed to actively supporting all Irish homes, communities and businesses in their choices and activities at this time of fundamental change in the energy sector. Over the past 90 years Irish electricity customers have invested in a distribution system which reaches every home and business in the country, and over the past two decades, as an industry we have adapted this system to integrate high and increasing levels of renewable generation. This same infrastructure which has supported Irish social and economic development can and should now support decarbonising the wider energy system.

ESB Networks' ability to deliver on the objectives of the National Climate Action Plan will rely increasingly over the coming years on it having new capabilities, and growing authority, along with changes in the technologies available to it and to its customers. The Clean Energy Package lays out a range of explicit requirements for the DSO and for regulatory authorities, with respect to how the distribution system is managed, to account for the activities and capabilities of active customers, distributed renewables, and energy communities.

Traditionally, our focus was more on customer connections, maintenance and reinforcement of the network, and responding to network outages, whereas real-time capacity management and balancing were the exclusive role of the TSO. However, as penetrations of distributed renewables increase, as low carbon demand increases, and as aggregators develop and provide system services which mean customers' demand may be more coordinated, new strategies are needed. The regulatory framework, and collaboration between the DSO, TSO and industry will be at the heart of making this possible. Legislative developments are moving simultaneously with technology and services. ESB Networks appreciates that its role is changing and developing in order to enable and actively integrate distributed generation and flexible demand into the system.

3. Initial Observations

ESB Networks makes the following initial observations with regard to the implementation of the Regulation:

1. This consultation relates to the proposed implementation of Articles 12 and 13 of EU 2019/943, regarding dispatch and redispatch of generation. As set out in EU 2019/943, this includes the dispatch and redispatch of distributed renewable generation, and of flexible demand resources, by both the TSO and the DSO. Notwithstanding initial steps with regards to reactive power management, facilitation of DSUs and non-secured generation connections, to date, under SEM arrangements, ESB Networks has had a limited role in this regard. However, we foresee that over the coming years, Ireland's ability to meet its renewable energy targets will be increasingly determined by a more active DSO role. ESB Networks' ability to take on such a role quickly and effectively will be dependent on a sensible and coordinated approach with the SEM Committee and the legislators, which takes into account the specificities of the Irish system and market.
2. The natural renewable energy resources available to us in Ireland, and some of the unique conditions arising on a low inertia island power system, mean that we are several steps ahead of the rest of Europe in facing and overcoming many of the challenges associated with integrating renewables. This is evidenced by the groundbreaking work in DS3, of which industry

and all relevant stakeholders are kept informed, and make contributions to, through participation in such forums as the DS3 Advisory Council. Over the next number of years, we are presented with a challenge and an opportunity which will be key to our ability to minimise downward dispatch of renewables, and help determine the success of Climate Action in Ireland, namely:

- a. The challenge of creating more space on the electricity system to accommodate our abundant natural renewable energy resource; and
- b. The opportunity to create secure and open market conditions in which this abundant natural renewable energy resource can be matched with flexible low carbon demand.

The very high level of embedded renewable generation in Ireland, often in locations with relatively low levels of demand, means that in Ireland there is substantial potential for interactions between the active and reactive power output of different generators in a location and with the network itself. We anticipate that it will be necessary for the DSO to introduce actively managed, market-based approaches to coordinate generation, demand and the local distribution network activities, to maximise the ability of distributed demand and generation to participate in an open market, and to reduce the downward dispatch of renewable generation at a whole system level. ESB Networks is committed to delivering the progressive, creative, market-based solutions needed to achieve this.

To do this at the pace needed and expected by the renewables industry in Ireland, and in line with the targets and system level needs indicated by the TSO, this must be done with the necessary support from the SEM Committee and the legislature. The manner in which the rules both for implementation of the Regulation, and for operation of the SEM are designed around this will be key.

3. As such, ESB Networks wishes to emphasise that we are committed to the implementation of the Regulation, in a manner that maximises the ability of distributed demand and generation to participate in an open market, and to reducing the downward dispatch of renewable generation.

Our concern at this time is that developments in Ireland in this regard need to progress at a pace that was not fully anticipated in the detailed drafting of EU 2019/943 if we are to securely achieve Ireland's committed 2030 renewable energy targets. Within the coming Price Review period (PR5) we anticipate that renewables will reach and exceed 53% of final electricity consumption, based on our work with the TSO in preparation for the PR5 process.

We consider that a key aspect of making this technically possible, is the introduction by the DSO of an active, localised, system management set out in observation 2.

We believe that in the drafting of EU 2019/943 there was some awareness of this, and thus certain measures were taken in the drafting of the Regulation to create the flexibility for member states and regulatory authorities to implement the Regulation in a manner that optimises specific conditions relating to the extent of renewables penetration, and system security challenges, arising.

As such, our objective in responding to this consultation is to urge that care is taken to ensure that overly simplistic implementation of Articles 12 and 13 does not inadvertently limit the DSO's ability to introduce market based solutions, actively managed by the DSO, to maximise renewable and demand side participation in an open and secure market, as required, to make Ireland's 2030 targets achievable. Specifically, and without limiting the foregoing general principle, we urge that the provisions implemented at this time, consciously provide the freedom for the following developments in the near future:

- a. Active management (dispatch) of renewable generation and demand at a local and regional level, to support greater liquidity and open participation in the energy and system services markets at a system level and to facilitate the provision of System Services to the TSO from distribution connected customers in order to reach the volumes required for Irelands unique low-inertia island power system. This space also needs to be actively managed as the activation of such services can in some circumstances, have detrimental effects on the operation of the distribution network
- b. Active management of constraints (and potentially curtailment) at a local and regional level, in a manner that minimises the downward dispatch of renewable generation by actively managing the network, generation and flexible demand services in a complementary manner that mitigates the limitations arising of local security conditions.

Notwithstanding our concern at this time that the proposal has not yet been drafted in a manner that addresses the points above, we consider that Option 7 as set out by the Regulatory Authorities is most likely to achieve this.

We would also urge that care is taken avail of the flexibility that was consciously drafted into EU 2019/943 to enable the design of solutions on systems like ours which already provide open, market-based solutions under the more challenging technical conditions arising, for example when renewable generation meets or exceeds 50% of total annual energy consumption. We note that within a short period of time this will be the case in Ireland, and that due regard to this

should be taken when drafting the final outcome of this consultation process. We would welcome the opportunity to explore the application of other flexibility within the drafting of the Regulation that may be appropriate to this market, such as the scope of the derogation from Article 13(7) where a fixed volume of energy is not guaranteed. Again, this is with a view to ensuring the best holistic solution for the network and the SEM having regard to the objectives of the Regulation and the Clean Energy Package.

4. We note that the proposal being consulted on at this time only appears to consider the most immediate clarifications as to how current activities in SEM, implemented by the TSO and SEMO, are affected. Though we recognise the need for a practical approach at the time of writing, we urge that the market design decisions made by the SEMC at this time are made with due consideration for the need to enable, rather than limit, the potential for open, market based solutions to maximise renewables at a system level, by optimising the space that the DSO can create on the system at a local level.
5. The consultation notes that Article 12 of the Regulation effectively removes priority dispatch for new renewable generators after 4 July 2019 and states that Priority Dispatch will no longer apply to existing generators where which are subject to “significant modifications” requiring a new connection agreement. ESB Networks emphasises the importance of ensuring that clarification is provided by the SEM Committee on what conditions constitute Significant Modification, how this is to be recorded, and how and when this will be communicated to the generator.
6. Finally, there is a need to urgently clarify the RAs’ intended treatment of forced and planned outages, and the instructions sets applying to individual Demand Sites (IDSs) which use high efficiency cogeneration as part of their DSU activities, as required to ensure the safety and security of the distribution system. Our understanding is that these do not constitute dispatch or redispatch instructions within current SEM provisions.

4. Answers to Consultation Questions:

Consultation Question 1: Do you agree with the RAs’ interpretation of the requirements under Articles 12 and 13 and specifically the application of dispatch, redispatch and market based/non-market based redispatch in the SEM?

ESBN Response - Please refer to Initial Observations, above also noting that:

- We are concerned that the RAs' interpretation fails to acknowledge the full intent of the Regulation with regard to the DSO's role in dispatch and redispatch;
- We are concerned that the RAs' proposal that the definition of curtailment will remain unchanged could be read to imply that all curtailment redispatch decisions will be taken by TSO, which we do not believe is consistent with the intent of the Regulation. We are concerned that within a short period of time, this definition would limit the ability of the DSO and the TSO to reduce downward dispatch of renewable generation and demand in a coordinated, market-based manner.

Consultation Question 2: In terms of the practical implementation of Article 12(1) to introduce a distinction between units which retain eligibility for priority dispatch and those which are not eligible, the RAs propose;

Where a commissioning programme has been agreed with the TSOs on or before 4 July 2019, it is proposed that such units will be eligible for priority dispatch.

Where a unit is eligible to be processed to receive a valid connection offer by 4 July 2019, the RAs are of the view that this represents a contract concluded before priority dispatch ceases to apply under Article 12 and that such units are also eligible for priority dispatch.

Interested stakeholder's views are invited on these proposals.

ESBN Response: ESB Networks does not have an opinion on the specific date selected.

Consultation Question 3: It is the RAs' understanding that any unit which is non-renewable dispatchable but is no longer eligible for priority dispatch can be treated like any other unit within the current scheduling and dispatch process, through submission of PNs with an associated incremental and decremental curve. Feedback is requested on this aspect of implementation of Article 12 of the new Electricity Regulation.

ESBN Response - ESB Networks' primary concern in this regard is that clarity of arrangements is provided.

Consultation Question 4: It is proposed that any unit which is non-dispatchable but controllable and is no longer eligible for priority dispatch would run at their FPN, be settled at the imbalance price for any volumes sold ex-ante and could set the imbalance price.

As part of this proposal, there is a question of whether such units would be required to submit FPNs or where no FPN is submitted, the unit could be assigned a deemed FPN calculated by the TSOs as per

the process today. Where a unit elects to submit an FPN, in this case, the TSOs would be required to use this as long as it does not deviate above a certain percentage of the TSOs' own forecast availability of the unit.

As an alternative or as a possible interim measure, taking account of the zero marginal cost nature of non-dispatchable but controllable generation in the market today, i.e. wind, solar, units no longer eligible for priority dispatch could be scheduled to their availability as per the process today on the assumption that this reflects economic dispatch in any case, but where there is excessive generation on the system such units would be subject to energy balancing prior to any priority dispatch units.

In particular, the RAs are seeking feedback from the TSOs on measures which can be introduced to facilitate required compliance with the new Electricity Regulation within the scheduling and dispatch and balancing market systems.

ESBN Response - Please refer to Initial Observations.

Consultation Question 5: Feedback is invited from interested stakeholders on the treatment of non-dispatchable and non-controllable units.

ESBN Response - Please refer to Initial Observations.

Consultation Question 6: Do you agree with the RA's interpretation that new generators which are no longer eligible for priority dispatch (both dispatchable and non-dispatchable but controllable) will be subject to energy balancing actions by the TSOs, considered in dispatch economically and settled like any other instance of balancing energy?

ESBN Response - Please refer to Initial Observations.

Consultation Question 7: What is your view on the application of bids and offers to zero-marginal cost generation?

ESBN Response - Please refer to Initial Observations.

Consultation Question 8: What is your view on a potential rule-set being implemented for non-dispatchable units where (a), systems cannot facilitate ranking of decremental bids for such units for balancing actions for a certain time period and/or (b) where convergent bid prices require a tie-break rule?

ESBN Response - Please refer to Initial Observations.

Consultation Question 9: Do you agree with the TSOs' proposal for a revised priority dispatch hierarchy?

The RAs request that the TSOs consider the points raised in this Section in their response with any further proposed changes to the hierarchy.

ESBN Response - Please refer to Initial Observations.

Consultation Question 10: Feedback is requested from interested stakeholders on the types of demonstration projects that may be suitable for an application process for limited priority dispatch eligibility.

ESBN Response - No Response to this question.

Consultation Question 11: The RAs' interpretation of the Regulation is that where a new connection agreement is required or where the generation capacity of a unit is increased, a unit will no longer be eligible for priority dispatch.

The RAs also propose that units should be able to make a choice on whether they wish to retain their priority dispatch status or not. Feedback is requested on this proposal.

ESBN Response - We would like to emphasize the importance of ensuring that clarification is provided on what the RAs consider to be "Significant Modification". The consultation refers to two general scenarios that may constitute Significant Modification – being the issuing of a Connection Agreement and the increase in capacity at a site. We consider that as they stand these definitions or categorizations are too broad and RAs should consider each further to ensure that they are reasonable. For example, Connection Agreements may be re-issued for a range of reasons that would not constitute a "Significant Modification" to the generation unit – for example, a Change of Legal Entity of the owner of a unit. Further while the Regulation is clear that an increase in capacity will be categorized as Significant Modification and mean removal of Priority Dispatch, it is not clear whether, for instance, this relates to installed capacity or contracted capacity or a change in technology type. Further clarification is required here.

It is also important to identify how this will be recorded, how and when this will be communicated to the Generator, and how and when a change to Priority Dispatch status is communicated to the SEMO to ensure appropriate treatment in the market on a go-forward basis. We note that no such processes are currently in operation.

Consultation Question 12: Do you agree with the RAs' interpretation of Article 13(5)(b) whereby downward redispatching of electricity produced from renewable energy sources or from high-efficiency

cogeneration (i.e. the application of constraints and curtailment) regardless of priority dispatch status, should be minimised in the SEM? Under this interpretation, the only difference between renewable generators and HECHP eligible for priority dispatch will be how they are treated in terms of energy balancing.

ESBN Response - Please refer to Initial Observations.

Consultation Question 13: Do you agree with the RAs' interpretation of Article 13(6) and the introduction of a new hierarchy for the application of non-market-based downward redispatching?

ESBN Response - Please refer to Initial Observations.

Consultation Question 14: Do you agree with the RAs' interpretation of Article 13(7) and the view that the provision of financial compensation to firm generators subject to curtailment based on net revenues from the day-ahead market including any financial support that would have been received represents an unjustifiably high level of compensation?

ESBN Response - Please refer to Initial Observations.

Consultation Question 15: Which of the options on compensation for curtailment presented above do you view to be most appropriate to adopt in the SEM? Are there additional options that the RAs should consider around compensation for curtailment?

ESBN Response - Please refer to Initial Observations.

5. Conclusion

ESB Networks remains available to discuss the comments provided in this consultation response and looks forward to engaging with the RAs and other industry stakeholders to ensure that the terms of the Regulation are implemented in the most efficient and optimal way in Ireland and to ensure that objectives of this Regulation can be realised to the fullest extent possible.