



**Decision Paper on Dispatch, Redispatch and
Compensation Pursuant to Regulation (EU) 2019/943**

SEM-22-009

22 March 2022

EXECUTIVE SUMMARY

This Paper outlines the feedback received to SEM-21-026 and the SEM Committee's response and decisions in the below areas along with providing an update on SEM-21-027 in relation to the treatment of new renewable units in the SEM.

The SEM Committee has given careful consideration to the feedback received, and engaged extensively with the TSOs in the preparation of this decision. As part of the engagement with the TSOs, it became clear that full implementation of the proposals in SEM-21-027 would take several years and impact on a number of key TSO systems. In light of this, the SEM Committee has had to consider the implications of Articles 12 and 13 in the context of an initial solution, during which TSO dispatch systems would remain broadly as they are today, and an enduring solution, at which point TSO systems would fully reflect the vision set out in Regulation (EU) 2019/943. The decisions summarised here, and set out below, represent the first step in the implementation of the requirements of Regulation (EU) 2019/943, and the project to implement its requirements is likely to continue for a number of years and require detailed engagement, in particular, between TSOs and market participants, on the implementation of market-based redispatch in the SEM.

The interpretation of dispatch and redispatch in relation to the Single Electricity Market

The SEM Committee has decided that in the SEM, dispatch relates to the scheduling and dispatch of units to meet the energy requirements of the market. Redispatch relates to deviations from the market schedule for generation for both local network and broader system reasons, including TSO-instructed changes in generation due to localised network issues (constraints) and reduction in non-synchronous generation due to other system-wide reasons such as levels of System Non-Synchronous Penetration (curtailment).

The SEM Committee is of the view that while processes related to distribution level redispatch are being managed on a jurisdictional basis, the introduction of congestion management frameworks at distribution level should consider the requirements of Article 13 during implementation.

The interpretation of actions, which may be considered market based and non-market based redispatch under the current market design

The SEM Committee is of the view, that as matters presently stand, it is appropriate to treat all redispatch applied to both priority dispatch and non-priority dispatch units, in relation to constraints and curtailment in the SEM, as non-market based redispatch.

On the basis that there are elements of non-market based redispatch associated with both constraints and curtailment in the SEM, there are a number of requirements in relation to non-market based redispatch under the Regulation, which must be considered in relation to the reporting requirements under Article 13(4), the hierarchy of redispatch required under Article 13(6) and in relation to the compensation requirements under Article 13(7).

The appropriate level of compensation for non-market based redispatching in the SEM and application of the unjustifiably high test under Article 13(7)

In the SEM Committee's view, it would not be appropriate to provide a higher level of compensation than provided for in the Regulation to non-firm units. The SEM Committee acknowledges the issues raised by respondents in terms of certainty associated with firm access quantities, particularly in relation to upcoming auctions for renewable support, and this is discussed further in Section 2.4.

The SEM Committee is of the view that in order to implement the requirements of Article 13(7), there is a need to separate compensation mechanisms in terms of costs associated with lost revenues in the market and revenues associated with foregone government support associated with the jurisdictional renewable support schemes.

Market Revenues

All units will initially receive compensation in the SEM for non-market based redispatch (in relation to both constraints and curtailment), where firm, at the better of their complex bid/offer price or imbalance settlement price up to the level of their Firm Access Quantity as is the case for constraints today (with wind and solar units

essentially retaining their ex-ante revenue as such volumes are settled at a deemed decremental price of zero).

In the context of the current and expected next two years' high prices, the SEM Committee has decided to implement and compensate any payments for curtailment associated with this Decision, beginning in tariff year 2024/25.

Foregone Financial Support

To reflect the jurisdictional nature of the support schemes present across the SEM, the decision in relation to the financial compensation related to foregone financial support will be made jurisdictionally.

Firmness in the SEM

Almost all respondents to the consultations raised firm access policy as an area where clarity is urgently required based on the differences in compensation arrangements for firm and non-firm generators. The SEM Committee acknowledges that this is an area of concern for both existing and new connections. Further consideration of this is provided in Section 2.4.

Treatment of New Renewable Units in the SEM

As part of SEM-21-027, a proposed Decision on the Treatment of New Renewable Units in the SEM, the SEM Committee requested the TSOs to host a series of workshops to consider the detailed issues raised in the proposed Decision with interested stakeholders. While one workshop was held during the Consultation period, it became clear through industry and TSO feedback that decisions on the issues covered in this paper were required to allow detailed preparatory work on the treatment of new renewable units to progress in a useful way.

The SEM Committee's minded-to positions presented in SEM-21-027 have not changed, in particular relating to the enduring treatment of new renewable units. However, following engagement with the TSOs it is clear that full implementation will not be feasible in the short term due to the significant system changes required. A correct implementation for enduring solutions will require significant engagement with industry along with considerations and interactions in line with other future

market design programmes such as System Service Future Arrangements, adjustments to the wind dispatch tool, and the integration of storage units to TSO dispatch systems.

The SEM Committee is of the view that for an interim period, until these system issues are resolved, the current operation of the system will be maintained until the necessary system changes are in place. Until such time, the treatment of constraints should continue on a pro-rata basis within a constraint group and curtailment should continue to apply to all units on a pro-rata basis overall.

Next Steps

The SEM Committee requests that following publication of this Paper, further workshops are scheduled on an urgent basis in order to progress the detailed solutions for treatment of new renewable units in the SEM in line with the positions set out in this Paper. The Regulatory Authorities will engage with the TSOs in relation to the format of these workshops. While the SEM Committee notes that full system implementation is not feasible in the short term, the Regulatory Authorities will continue to engage with the TSOs in relation to implementation of the decisions set out in this paper and will provide updates to interested stakeholders in this area.

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1. Introduction

1.1 Clean Energy Package Background

The Clean Energy for all Europeans package (CEP) consists of eight legislative acts, which were adopted by the European Parliament and European Council in 2018 and 2019 following Commission proposals in November 2016. This involves a comprehensive update of the EU's energy policy framework aimed at enabling the transition to cleaner energy and facilitating a reduction in greenhouse gas emission levels of 40% by 2030 compared to 1990.

The revised Regulation on the internal market for electricity (EU) 2019/943¹ under the CEP seeks to amend aspects of wholesale electricity markets in Europe, enhance integration and progress the transition to renewable energy.

In April 2021, the SEM Committee published two Papers based on the issues raised in SEM-20-028 related to the implementation of Articles 12 and 13 of the Electricity Regulation under the Clean Energy Package;

1. A Consultation on Dispatch, Redispatch and Compensation Pursuant to Regulation (EU) 2019/943 (SEM-21-026)
2. A Proposed Decision on the Treatment of New Renewable Units in the SEM (SEM-21-027)

The Consultation and Proposed Decision Papers closed for responses on Friday 9 July 2021, with thirty-six non-confidential responses received across both Papers. On 29 August 2021, all non-confidential responses received to SEM-21-026 and SEM-21-027 were published on the SEM Committee Website².

¹ [Regulation \(EU\) 2019/943](#) on the internal market for electricity.

² <https://www.semcommittee.com/publications/sem-21-070-publication-responses-sem-21-026-and-sem-21-027>

1.2 Purpose of this Decision Paper

This Paper outlines the feedback received to SEM-21-026 and SEM-21-027 and the SEM Committee's response and decisions in the areas of;

1. The interpretation of dispatch and redispatch in relation to the SEM, including the nature of decremental actions on priority dispatch units, application at transmission and distribution level and the starting point for redispatch.
2. The interpretation of actions, which may be considered market based, and non-market based redispatch under the current market design pursuant to Article 13.
3. The determination of the appropriate level of compensation for non-market based redispatching in the SEM and application of the unjustifiably high test under Article 13(7).
4. Implementation of ex-post compensation arrangements.
5. Discussion of issues raised on firmness in the SEM.
6. An update in relation to the treatment of new renewable units in the SEM.

2. Feedback Received and SEM Committee Decisions

2.1 Dispatch and Redispatch

Consultation Proposals

Definition of Dispatch and Redispatch & Starting Point for Redispatch

In the Consultation Paper, the SEM Committee set out the minded to position that in the SEM, dispatch relates to the scheduling and dispatch of units to meet the energy requirements of the market. In the paper, the SEM Committee noted the complexity of identifying dispatch and redispatch separately in the central dispatch system with an integrated scheduling process, which is carried out through the identification of energy and non-energy actions as part of the flagging and tagging process.

The Consultation proposed that redispatch in the SEM relates to deviations from the market schedule for generation for both local network and broader system reasons, including TSO-instructed changes in generation due to localised network issues (constraints) and reduction in non-synchronous generation due to other system-wide reasons such as levels of System Non-Synchronous Penetration (curtailment).

Based on the definition of dispatch and redispatch set out in the Consultation, the proposed starting point for dispatch is a unit's ex-ante position (their combined traded position from sales of electricity in the day-ahead and intraday electricity markets) and the starting point for redispatch is any TSO-instructed deviation from this position for local network and broader system reasons.

Decremental Actions on Priority Dispatch Units

The Consultation also considered the issue of decremental actions applied to priority dispatch units in order to manage the demand-supply balance (as opposed to management of constraints or curtailment). A question was posed as to whether this represents a form of balancing energy (or an energy action) or of redispatch (or a non-energy action) based on the definitions outlined above due to the constraint of the Priority Dispatch hierarchy. A question was also raised in relation to whether such actions should feed into the Balancing Market Price, with potential options presented for feedback from respondents.

Redispatch at Distribution Level

This section of the Consultation also raised the question of whether all forms of redispatch in the SEM had been identified through the proposed definition related to constraints and curtailment applied by the TSOs, given that the Regulation recognises that redispatch for congestion management may be carried out by System Operators at transmission and distribution level.

The Consultation noted that as more generation connects at the distribution level, the management of constraints which limit access to the energy market will need to be addressed and invited feedback from DSUs and System Operators on this area, in particular.

Feedback Received

Definition of Dispatch and Redispatch & Starting Point for Redispatch

A number of respondents supported the interpretation presented in SEM-21-026, however, some respondents raised concerns in relation to the treatment of non-participant generators and priority dispatch generators, stating that arrangements will be required for De Minimis generation subject to non-market redispatch.

Specific comments related to these concerns included that such generators do not need to participate in markets (ex-ante or otherwise) in order to have the right to be dispatched. Respondents also argue that the meaning of redispatch under the Regulation is any dispatch down from the available power of a priority dispatch generator.

Similar arguments were raised in relation to De Minimis or non-participant generators and that consideration needs to be given as to how De Minimis generators will be treated equitably without incurring undue costs.

Decremental Actions on Priority Dispatch Units

Responses to this part of the Consultation were mixed. A number of respondents supported the idea that such actions are non-market in nature but that compensation should be paid to such units in line with Article 13(7).

Others were of the view that such actions should not set the imbalance price, as they are not taken based on any merit order. The TSO view is that it may be appropriate

to introduce new elements, which would create flagging and tagging outcomes that align better with the understanding of whether the action is primarily being driven by energy or non-energy reasons. One respondent pointed to these particular actions being a form of 'non-market-based dispatch', which is not defined in the CEP or in EBGL.

A number of respondents disagreed with the proposals in the Consultation and argue that decremental actions taken on priority dispatch units can be considered either dispatch and redispatch (energy and non-energy actions) rather than as forms of redispatch only (non-energy actions). In their view, implementation of either of the proposals in the Consultation Paper would lead to increased balancing market prices, which would subsequently increase prices in the day-ahead and intraday markets as price spreads narrow between the markets. This would have direct impacts on the price consumers must pay for their energy, but also on the flow of power on the interconnectors leading to increased curtailment.

Redispatch at Distribution Level

Both NIEN and ESN support the view that in the current SEM, the TSOs are responsible for dispatch (central dispatch market model) and redispatch (curtailment and constraint) but that in future there may be new forms of dispatch and redispatch at the distribution level. Both DSOs suggest that redispatch at the distribution level is not within the remit of the SEM but that there is ongoing engagement with each RA in this area and SEM Committee decisions should not create barriers for the DSOs to develop market-based solutions.

DRAI argue that instruction sets are a measure, activated by the DSO/DNO, which curtails a demand site's load pattern versus that which it would have occurred in the absence of the instruction set, in order to change the physical flows on the power system to relieve physical congestion. Therefore, instruction sets are a form of redispatch.

SEM Committee Response and Decision

Definition of Dispatch and Redispatch & Starting Point for Redispatch

The SEM Committee notes the general support for the application of the definitions of dispatch and redispatch in the context of the SEM and the issues raised in relation

to the application of these concepts to priority dispatch generation and non-participant or De Minimis generators. The proposal in the Consultation is to calculate redispatch based on deviations for constraints and curtailment from units' ex-ante market schedule, aligned to the current treatment of constraints in the SEM.

Non-participant/De Minimis generation

During the design phase of the revised SEM arrangements, the ETA Building Blocks Decision Paper decided that the De Minimis generation threshold (i.e. the threshold for mandatory participation in I-SEM) should be maintained at 10MW Maximum Export Capacity (MEC). It stated that any generators below the De Minimis threshold could find a route to market through the Agent of Last Resort (AOLR) or independent aggregation services, possibly through negotiated Power Purchase Agreements (PPAs) with a supplier. Currently, De Minimis generators can enter into a PPA with a supplier and are treated as negative demand for that supplier, or supplement their PPA with an intermediary agreement under the Trading and Settlement Code, which involves full market participation by the generator but entirely managed by their counterparty to the PPA.

A similar issue was raised by non-participant / De Minimis generation as part of the ETA Building Blocks Decision (SEM-15-064). Respondents to this Consultation raised concerns that payments for constraints in the SEM would be limited to participants that are moved away from an ex-ante contract position. In response the SEM Committee stated;

'The SEM Committee decision is that the I-SEM will maintain the SEM principle that a generator shall be entitled to receive the Day Ahead (or Intraday) price or be compensated for lost profits, as revealed through their offer prices, if they obtain a matched trade in these markets and are unable to generate to meet that trade due to a constraint. For clarity, this means that:

- *a unit that obtains an ex-ante market position or that is dispatched up will receive at least its offer price, and*
- *a unit that is constrained down from its ex-ante market position (and which has firm access) will retain its inframarginal rent.'*

This means that if a non-priority dispatch unit is dispatched away from its ex-ante position, if constrained up, it will be paid the higher of the imbalance settlement price or offer price, and if constrained down it will pay the lower of the Imbalance Settlement Price or bid price (to buy back electricity to cover its position).

The proposals in SEM-21-026 are based on an extension of these existing principles for compensation associated with redispatch (constraints and curtailment), with the starting point for redispatch being deviations from the market schedule for generation for both local network and broader system reasons. The SEM Committee have concluded that Generation below the De Minimis threshold have a choice to participate in the market on a voluntary basis, to avail of redispatch compensation or retain existing De Minimis benefits.

Priority Dispatch Generation

In relation to the position in some responses, which argued, that priority dispatch generation should be compensated for any redispatch, based on unit availability as a starting point. Currently in the SEM if a priority dispatch unit is constrained it will retain its ex-ante revenue through a deemed decremental price of zero being applied in the system, based on a position in the ex-ante markets. The SEM Committee is not of the view that this mechanism should be amended in order to implement compensation arrangements under Article 13 of the Regulation, as variable generators have the same opportunity to participate in the ex-ante market as any other units. The SEM Committee also notes that the intent of the Regulation is clear that market participation is to be promoted in order to maximise the benefits for customers from increased liquidity in ex ante markets, efficient interconnector flows and incentives for investment in demand side response and storage technologies.

Decremental Actions on Priority Dispatch Units

A decision in this area will be deferred until the EBGL Consultation and Decision-making process is complete and a Consultation on Articles 3, 6 and 10 of the Electricity Regulation has taken place. It is the SEM Committee's present view, that these actions do not fit neatly into the definition of either dispatch or redispatch but are a consequence of the way in which Priority Dispatch has been implemented in the SEM.

However, the SEM Committee will continue to consider these matters as the various decisions set out above are progressed, in coming to a final decision in this area.

Redispatch at Distribution Level

In SEM-21-026, the SEM Committee highlighted the issue of instruction sets and requested feedback on these as a form of constraints, or potentially redispatch, at the distribution level. Feedback on this point was received from NIEN, ESNB and DRAI.

Redispatching is defined in the Regulation as *‘a measure, including curtailment, that is activated by one or more transmission system operators or distribution system operators by altering the generation, load pattern, or both, in order to change physical flows in the electricity system and relieve a physical congestion or otherwise ensure system security’.*

This implies that as the distribution networks and the role of the DSO evolves, any future roles the DSO may play in relation to dispatch and redispatch in the SEM will also need to be considered in terms of implementation of Article 13 at the appropriate time. The SEM Committee is of the view that while processes related to distribution level redispatch are being managed on a jurisdictional basis, the introduction of congestion management frameworks at distribution level should consider the requirements of Articles 12 and 13 during implementation.

SEM Committee Decision:

- In the SEM, dispatch relates to the scheduling and dispatch of units to meet the energy requirements of the market.
- Redispatch in the SEM relates to deviations from the market schedule for generation for both local network and broader system reasons, including TSO-instructed changes in generation due to localised network issues (constraints) and reduction in non-synchronous generation due to other system-wide reasons such as levels of System Non-Synchronous Penetration (curtailment).
- A decision in relation to the nature of decremental actions taken on priority dispatch units will be deferred until the conclusion of related Consultation and Decision-making processes.
- As the distribution networks and the role of the DSO evolves, any future roles the DSO may play in relation to dispatch and redispatch in the SEM will need to be considered in terms of implementation of Article 13 at the appropriate time. The SEM Committee is of the view that while processes related to distribution level redispatch are being managed on a jurisdictional basis, the introduction of congestion management frameworks at distribution level should consider the requirements of Articles 12 and 13 during implementation.

2.2 Market and non-market based redispatch

Consultation Proposals

The Consultation proposed that curtailment in the SEM is currently a form of non-market based redispatch, as it is applied to all non-synchronous units (regardless of priority dispatch status) and is not based on any merit order or the bids and offers of units.

It proposed that constraints applied to all non-priority dispatch units are a form of market based redispatch and that constraints as applied to all priority dispatch units are a form of non-market based redispatch based on whether or not decisions are taken based on a merit order.

Where the application of constraints and curtailment in the SEM is non-market based, this would then be subject to Article 13(7) and proposals related to compensation were set out in a separate section of the Consultation.

Feedback Received

In relation to both curtailment and constraints, a number of respondents presented a view of whether these should be considered a form of market based or non-market based redispatch along with a view of how constraints and curtailment should be treated for new renewable units (i.e. on a pro-rata basis with existing units or according to a merit order). An update in relation to the treatment of such units is provided in Section 2.5 of this Paper, however, the focus of this section of the Paper is the classification of market/non-market redispatch in the SEM for the purpose of compensation under Article 13.

Curtailment

Respondents generally agree that curtailment is a form of non-market based redispatch as these actions are taken to comply with system wide technical and security limits and as this is applied pro-rata with no economic merit order or bids and offers of units it cannot be said to be market based. The vast majority of respondents supports this position, however, one respondent was not aligned with this proposal for curtailment or the view of the SEM Committee in relation to market-based and non-market based redispatch.

Constraints

The majority of respondents argue that all constraints are non-market based in the SEM as they are subject to mandatory bidding principles rather than generators being able to freely bid a price where they are prepared to be dispatched down.

Under Article 13(3)(c) non-market based redispatching may be used where *‘the number of available power generating, energy storage or demand response facilities is too low to ensure effective competition in the area where suitable facilities for the provision of the service are located’*. Respondents argue that this is analogous to constraint groups in the SEM.

A number of respondents note that in the I-SEM Market Power Mitigation Decision Paper (SEM-16-024), the SEM Committee mandated short-run marginal cost complex bid and offers to apply for all redispatch in the I-SEM on the basis that there is no competitive market under conditions of network constraints. Respondents argue that as they are subject to the BCoP (soon to be replaced by the BMPCoP), constraints cannot be market based as they cannot freely bid a price where they are prepared to be dispatched down.

There was also a number of respondents that did not support the proposal that constraints, as applied to priority dispatch units, are a form of non-market based redispatch. One respondent stated that for units which can submit Commercial Offer Data (COD), Technical Offer Data (TOD) and Final Physical Notifications (FPNs), such as dispatchable units with priority dispatch, these actions should be designated as market based, as there is a clear economic merit order involved in making the decision to redispatch units. Others were of the view that redispatch for constraints, for new units, should be considered as a form of market-based redispatch.

SEM Committee Response and Decision

Based on the range of feedback received from respondents and consideration of the information on these issues from other jurisdictions, it appears that unless units can freely submit bids and offers for constraints or curtailment, redispatch in the SEM, both applied to priority dispatch and non-priority dispatch units, has features associated with non-market based redispatch. On this basis, the SEM Committee is of the view, that as matters presently stand, it is appropriate to treat all redispatch

applied to both priority dispatch and non-priority dispatch units, in relation to constraints and curtailment in the SEM, as non-market based redispatch.

There are a number of follow-up issues to consider on this basis. Where redispatch is non-market based, it is then subject to a number of requirements under Article 13. Two of the most important requirements to consider are the hierarchy of redispatch required under Article 13(6) (relevant to considerations in SEM-21-027) where RES and HECHP may only be redispatched after other options are exhausted and the requirements for compensation under article 13(7), which are considered further in Section 2.3.

There is a separate decision of whether constraints and curtailment for new RES units should be applied pro-rata or not, which was considered in SEM-21-027 and is discussed further in Section 2.5.

SEM Committee Decision:

- As matters presently stand, it is appropriate to treat all redispatch applied to both priority dispatch and non-priority dispatch units, in relation to constraints and curtailment in the SEM as non-market based redispatch. This entails the continuation of the current mechanism to allocate constraints and curtailment on a pro-rata basis.

2.3 Compensation under Article 13(7)

Consultation Proposals

In relation to compensation for constraints under Article 13(7), the Consultation proposed that constraints applied to priority dispatch units and non-priority dispatch units should be remunerated based on the mechanisms for compensation already in place in the SEM.

The Consultation proposed to provide compensation for non-market based redispatch associated with curtailment through different levels of compensation for priority dispatch and non-priority dispatch units.

It was proposed that units that are currently eligible for priority dispatch would receive compensation for non-market based redispatch (in relation to curtailment), where firm, up to the level of any additional operating costs caused by redispatching pursuant to Article 13(7) (a). Based on the understanding that the marginal cost of non-synchronous units subject to curtailment is minimal and the Curtailment Price would continue to apply, these units would also have the opportunity to benefit from the same treatment as new units outlined below if they chose to surrender their Priority Dispatch rights.

All new units, which are no longer eligible for Priority Dispatch, based on the criteria outlined in SEM-20-072, would be subject to compensation under Article 13(7), where firm and subject to non-market based redispatch (in relation to curtailment) up to the level of the DAM price at the time they are curtailed. All units would have the opportunity to avail of compensation up to the level of the DAM price in exchange for surrendering their Priority Dispatch rights. This was linked to the implementation of market changes to facilitate non-priority dispatch renewables set out in SEM-21-027.

Feedback Received

While some respondents support the proposals to treat priority dispatch and non-priority dispatch units differently along with the proposals for the level of compensation, many suggest alternative ranges of differentiation and the majority of respondents are strongly against the proposal not to compensate up to the higher of the market price or opportunity cost including support due to curtailment or constraints. A number of arguments to support this include;

- That the SEM Committee cannot consider local statutory objectives when considering the implementation of the Regulation, as the Regulation has primacy in the legal hierarchy. Therefore, the Regulation must be implemented as written without interpretation or discretion on certain elements of 13(7).
- That the SEM Committee has misinterpreted the 'unjustifiably high' provision in the Regulation, and that the unjustifiably high test can only be applied on a unit-by-unit basis.
- That any considerations in relation to the characteristics of the SEM or the nature of the different financial support mechanisms in the jurisdictions are irrelevant.

Many respondents also argue that the Consultation proposals will negatively impact on renewable investment and support prices in upcoming auctions for renewable support. Respondents argue that if non-priority dispatch units are compensated to the full level of support then priority dispatch units may be incentivised to give up Priority Dispatch status, which would move more units into the competitive DAM, resulting in better market outcomes.

Some respondents highlighted the need to find a balance between protecting the interests of electricity consumers, by promoting effective competition, and the owners/investors of renewable generating plants, by reducing the risks associated with the uncertainty in the volumes of power that would be injected onto the grid. Respondents argue that risks and incentives, primarily around network constraints, curtailment, and firm access to the grid, need to be allocated to System Operators in order to minimise constraints and curtailment and reduce investment risk that will lead to the most cost-effective method of meeting 2030 renewable energy targets.

EirGrid and SONI understand that the Regulatory Authorities have concerns around the approach of applying a cap in the ex-ante markets. On that basis, it is the TSOs' view, for both priority dispatch and non-priority dispatch units, if a unit has a market position and is re-dispatched down from their market position, they should be compensated to their net revenue position (including supports). Stating this approach should be balanced by a reduction in the bid prices submitted by the investors into

the support schemes and the increased likelihood of achieving renewables targets via investor confidence.

One respondent is concerned that the proposed decision could leave certain plant at an unjustifiably low level of compensation compared to the intent of the Regulation. Stating that without any scope to amend balancing market offers to reflect operating costs (as opposed to opportunity cost), then the proposal to leave market rules and principles unchanged regarding constraints fails to meet the requirements under the Legislation.

Firmness & Compensation under Article 13(7)

A number of responses to this area of the Consultation also noted the issue of firm access and commented on the proposal to provide compensation for constraints and curtailment to new units only. Respondents requested clarity on schedules for Firm Access Quantities for units and a number of respondents are of the view that compensation associated with curtailment should apply to firm and non-firm generation.

A number of respondents proposed, that due to the unreliability of projected firm access dates, an adequate period from grid connection to afford firmness for non-firm connections, stating a lack of clarity in this area is a risk that developers cannot adequately define the cost of their future units.

SEM Committee Response and Decision

Considering the responses received to the Consultation and based on further review of the arguments raised, the SEM Committee remains of the view that the foregone revenues (plus support) measure of compensation for non-market based redispatch under Article 13(7) may properly be found to result in 'unjustifiably high' compensation in circumstances other than those contended for in many responses. In the SEM Committee's view, and as discussed further below, such arguments for a narrower interpretation are supported neither by the language of Article 13(7) nor by its context or the aims pursued by the Regulation.

The SEM Committee acknowledges the difficulty highlighted in many responses in assessing the correct balance between providing investment certainty to new renewables and considering the broader policy and cost implications of this

assessment, including avoiding inefficiently improving the financial position of existing units, with little additional benefit for consumers.

Current Compensation Arrangements in the SEM

Compensation for Curtailment

SEM-13-010 decided to phase out compensation for curtailment over time and this ended in 2018 with go live of the revised market arrangements. This decision was taken in order to protect consumers from the risk of curtailment with an extended period to phase out such payment in order to provide certainty and sufficient lead-in time for existing and future generators.

The Trading and Settlement Code Decision in 2017 (SEM-17-024³), amended the calculation of the curtailment price such that where prices earned by a curtailed generator in the ex-ante market are higher than the balancing market price, this revenue is recouped. Any losses made by the generator where the prices in the ex-ante markets are higher than in the balancing market are made whole. This applies to both firm and non-firm generators.

Compensation for Constraints

Where the TSOs dispatch units away from their market position represented by a Physical Notification (PN) to manage constraints in the Balancing Market, either to increase or decrease output, units are settled at the better of their complex bid/offer price or imbalance settlement price up to the level of their Firm Access Quantity. This means that they are able to retain any inframarginal rent they would have received, taking fuel costs into account. Non-firm generation, which is constrained, pays the Balancing Market Price for the constrained volumes. For non-dispatchable priority dispatch generators, they do not receive any payment or make a payment for constraints, leaving them with their ex-ante market revenue if they are constrained below their market position.

³ https://www.semcommittee.com/sites/semcommittee.com/files/media-files/SEM-17-024%20Trading%20and%20Settlement%20Code%20Amendments%20Decision%20Paper_0.pdf

Interpretation of the ‘unjustifiably high’ test under Article 13(7)

As mentioned above, the SEM Committee considers that the arguments raised in responses for narrowing the interpretation of the ‘unjustifiably high’ test in Article 13(7) are not supported by the language of Article 13(7).

A number of responses suggested, for instance, that the ‘unjustifiably high’ test is required simply in order to ensure that, where a generator is dispatched down and has saved fuel costs as a result, compensation for foregone ‘full’ revenues does not result in overcompensation. However, such an interpretation ignores the fact that Article 13(7) only requires compensation for foregone ‘net’ revenues (i.e., taking into account cost savings) and that, therefore, the ‘unjustifiably high’ test was designed to address a different issue.

In the SEM Committee’s view the ‘unjustifiably high’ test was designed with a broader function in mind, as is apparent from the context of Article 13(7) and the legislative origins of that provision, in particular the European Commission proposal (and associated impact assessment) upon which the Regulation is based.

The SEM Committee notes the proposal envisaged that a high proportion of foregone revenues due to redispatch would be compensated by the relevant System Operator, but that overall cost to consumers should remain the same where these costs are integrated into renewable support schemes.

The proposed text of the Regulation presented to the European Parliament and the Council in February 2017⁴ by the Commission envisaged that 90% of net revenues should be provided in compensation for redispatch. It stated that *‘Financial compensation shall at least be equal to the highest of the following elements;*

- (a) Additional operating cost caused by the curtailment or redispatching, such as additional fuel costs in case of upward redispatching, or backup heat provision in case of downward redispatching or curtailment of generating installations using high-efficiency cogeneration;*
- (b) 90% of the net revenues from the sale of electricity on the day-ahead market that the generating or demand facility would have generated without the*

⁴ [pdf \(europa.eu\)](#)

curtailment or redispatching request. Where financial support is granted to generating or demand facilities based on the electricity volume generated or consumed, lost financial support shall be deemed part of the net revenues.'

This Article was revised in November 2017⁵ to remove any reference to '90% of the net revenues' and referenced 'net revenues' only. Revised versions of the draft Regulation on the internal market for electricity were issued in September (doc. 10681/2017) and November (doc. 10681/17 REV 1 and 10681/17 ADD 1). The second revision inserted the reference to the unjustifiably high/low test which in the final Regulation states '*such financial compensation shall be at least equal to the higher of the following elements or a combination of both if applying only the higher would lead to an unjustifiably low or an unjustifiably high compensation.'*

The Impact Assessment accompanying the Commission proposal for the Regulation⁶ points to a number of considerations the Commission had in considering compensation for redispatch;

'In principle, market-based resources should be used first, thus curtailing or redispatching first those generators which offer to do this against market-based compensation. In a second step, where no market-based resources can be used, minimum rules on compensation are foreseen, ensuring compensation based on additional costs or (where this is higher) a high percentage of lost revenues'

The Impact Assessment, which noted the views of respondents to the public consultation on the Regulation, including Wind Europe, stated;

'Wind Europe recognizes that "there may be a benefit from not compensating 100% of the opportunity cost. Reducing slightly the income could send an important incentive signal to investors to select locations with existing sufficient network capacity, Curtailment would then be likely to occur less frequently. The exact % of the opportunity cost needs to be carefully assessed in order to find a balance between an increase in policy cost and the increase of financing costs due to higher market risk." This position is reflected in the present proposal.'

⁵ <https://data.consilium.europa.eu/doc/document/ST-10681-2017-REV-1/en/pdf>

⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016SC0410>

An interaction between compensation requirements and renewable subsidy schemes was also noted;

'Increased transparency and legal certainty on curtailment and re-dispatch are a "no regret" measure, in so far as they contribute to market functioning even in the absence of changes to the priority dispatch and priority access framework. Ensuring sufficient compensation for curtailment, notably for RES E, will increase costs to be borne by system operators. In so far as these costs are currently integrated into renewable subsidy schemes, total system costs will however remain similar.'

In the view of the SEM Committee, it is evident in light of this legislative history that a key purpose of the 'unjustifiably high' test contained in Article 13(7) is to allow an appropriate balance to be struck between the increase in policy costs resulting from compensation for the redispatch of renewable generation (having regard to such matters as the extent to which such costs are integrated into renewable subsidy schemes) and the increase of financing costs associated with such generation due to higher market risk. The need for a balanced solution is a key consideration for the SEM Committee in reaching the decisions set out in this paper.

Firmness Considerations

As set out in SEM-21-026, appropriate rules are in place in the market for compensation associated with constraints applied to firm units and these arrangements support locational investment signals for generators to locate in less constrained areas.

The Regulation is clear in stating *'Where non-market based redispatching is used, it shall be subject to financial compensation by the system operator requesting the redispatching to the operator of the redispatched generation, energy storage or demand response facility except in the case of producers that have accepted a connection agreement under which there is no guarantee of firm delivery of energy.'*

Up to the phase out of payment for curtailment under the old market arrangements in 2018, compensation based on the system marginal price was only ever paid to firm generators.

On this basis, in the SEM Committee's view it would not be appropriate to provide a higher level of compensation than provided for in the Regulation for non-firm units. The SEM Committee acknowledges the issues raised by respondents in terms of certainty associated with firm access quantities and this is discussed further in Section 2.4.

Decisions in relation to compensation

This decision has been preceded by detailed discussions in SEM-21-026 and SEM-20-028 concerning a range of issues the SEM Committee has considered in implementing these complex changes to the SEM, which are not repeated in detail here. The SEM Committee has considered the responses to both Consultations in detail. The SEM Committee notes the comments from industry, that in order to drive the scale of renewable investment required as part of the energy transition, the total revenues for renewable generators from a combination of market revenues and support payments need to be sufficient to provide a fair return on the capital cost of investment.

The SEM Committee has concluded through this process that, until a number of areas are progressed in relation to the treatment of new renewable units, changes are required to the current compensation arrangements for redispatch in the SEM in order to comply with the Regulation while also providing the reasonable certainty needed through a price sufficient to earn a fair return for new investment. While it is expected that the total impact on consumers through this approach will include increased payments for redispatch, this should also lead to lower energy market prices through increased participation in ex ante markets, and lower bid prices in competitive auctions for renewable support.

On the basis of the considerations outlined in this Paper, responses received to SEM-21-026 and SEM-20-028 and in light of further analysis of non-market based redispatch, appropriate amounts of compensation will be payable in accordance with Article 13(7).

The SEM Committee is of the view that in order to implement the requirements of Article 13(7), there is a need to separate compensation mechanisms in terms of costs associated with lost revenues in the market and revenues associated with

foregone government support associated with the jurisdictional renewable support schemes. Considerations for this approach include;

- (a) the compatibility of compensation mechanisms with existing and future renewable support schemes;
- (b) to the allocation of the costs associated with renewable support appropriately to the relevant jurisdiction (i.e. Ireland and Northern Ireland), and;
- (c) the differences in each jurisdictional support scheme.

It is expected that under this approach, no changes to the BCoP (or BMPCoP once in force) would be required due to the separation between revenues in the market, based on the extension of mechanisms in place today for constraints and curtailment, and revenues associated with foregone support.

Details of each mechanism are set out below.

Market Revenues

All units will initially receive compensation in the SEM for non-market based redispatch (in relation to both constraints and curtailment), where firm, at the better of their complex bid/offer price or imbalance settlement price up to the level of their Firm Access Quantity as is the case for constraints today (with wind and solar units essentially retaining their ex-ante revenue, as such volumes are settled at a deemed decremental price of zero).

This will effectively extend the arrangements in place for constraints in the market to curtailment for all units, with the costs associated with curtailment to be recovered in the same way via the Imperfections Charge. This will provide for non-discrimination between different units that may be subject to different support schemes within the market for the purpose of market compensation.

This initial arrangement will be based on the interim continuation of pro-rata treatment of curtailment across all units and pro-rata treatment of constraints within a constraint group, regardless of Priority Dispatch status, until a number of conditions are met which are set out in Section 2.5.

Following implementation of enduring solutions and completion of the future market design, the measures introduced through this decision for compensation associated with curtailment for priority dispatch units will be phased out, based on the expected change in the value of Priority Dispatch at such a point in time.

It is expected that following implementation of required changes, compensation through this approach will occur through the same settlement mechanisms as per constraints in the market today.

Foregone Financial Support

In relation to the compensation for loss of financial support derived from non-market based redispatch, a number of issues need to be considered:

1. Ireland and Northern Ireland have different renewable support schemes in operation. The design of these schemes are considerably different and would demand a specific mechanism to calculate the potential compensation due.
2. Given the role of the respective Departments of Government in Ireland and Northern Ireland in setting Government-backed incentives and design such schemes, the decision over any compensation mechanism that would arise from loss of Government backed incentives needs to be implemented jurisdictionally and in coordination with the respective Departments of Government.

The SEM Committee is of the view that, where there is a difference between market revenue compensation and a renewable unit's foregone support payment where non-market redispatch has occurred, in order to prevent any potential distortions of competition within the SEM resulting from divergent jurisdictional approaches, the below principles should be applied;

- (a) For renewable units commissioned after 4 July 2019⁷, compensation based on the higher of a unit's ex-ante revenues or foregone support should not be

⁷ In line with the definitions set out in [SEM-20-072](#)

considered 'unjustifiably high' unless there is good cause (in the context of applying the assumption set out below) to find otherwise.

Any foregone support for such units would generally be expected to derive from competitive, auction based support schemes under which bids would reflect market revenues, including those introduced through Article 13(7).

- (b) For renewable units commissioned prior to 4 July 2019, compensation based on the higher of a unit's ex-ante revenues or foregone support should be considered 'unjustifiably high' unless there is good cause (in the context of applying the assumption set out below) to find otherwise.

Any foregone support for such units would generally be expected to derive from schemes under which support was based on the levelised cost of electricity from different renewable sources.

With the above points in mind, the SEM Committee is making a decision only in relation to compensation for the loss of revenue in the market caused by non-market redispatch. Further decisions in relation to the financial compensation related to the Government incentive schemes or support mechanisms, will be made jurisdictionally in line with the above principles.

This approach allows for further engagement with the respective Department of Government in both market jurisdictions.

The SEM Committee notes that this process is forward-looking and that there are two areas to clarify in terms of the mismatch in timing between the entry into force of the Regulation and implementation of this SEM Committee Decision. As set out in SEM-21-026 the SEM Committee is of the view that costs accrued due to the requirements of the Regulation from January 2020 should be compensated, based on the same principles set out in this Paper. Of the two options proposed in the Consultation to apply payment from January 2020, the SEM Committee is of the view that the most straightforward approach to this process would entail the following steps;

1. The TSOs would compile information on the level of curtailment and constraints from firm market positions of each unit for each market time unit

across the applicable time period (which would be the period until the compensation arrangements set out in this Paper are implemented).

2. This could then be compared against relevant DAM prices and expected revenues based on each units' market position. This should lead to some payments to firm generators with ex ante positions in the case of curtailment, but should not lead to any additional costs in the case of constrained generators.

SEM Committee Decision:

- It would not be appropriate to provide a higher level of compensation than provided for in the Regulation for non-firm units.
- **Market Revenues**
All units will initially receive compensation in the SEM for non-market based redispatch (in relation to both constraints and curtailment), where firm, at the better of their complex bid/offer price or imbalance settlement price up to the level of their Firm Access Quantity as is the case for constraints today (with wind and solar units essentially retaining their ex-ante revenue, as such volumes are settled at a deemed decremental price of zero).
- **Foregone Financial Support**
To reflect the jurisdictional nature of the support schemes present across the SEM, the decision in relation to the financial compensation related to the incentive schemes will be made jurisdictionally.
- Costs accrued due to the requirements of the Regulation from January 2020 should be compensated, on the basis of the same principles set out in this paper.
- In the context of the current and expected next two years' high prices, the SEM Committee has decided to implement and compensate any payments for curtailment associated with this Decision, beginning in tariff year 2024/25.

2.4 Firmness in the SEM

Almost all respondents to the consultations raised firm access policy as an area where clarity is urgently required, based on the differences in compensation arrangements for firm and non-firm generators. The SEM Committee acknowledges that this is an area of concern for both existing and new connections. Firm access policy is an important area in terms of ensuring network safety and security of supply, sending appropriate signals for the location of new investment and providing a balance between granting access to the networks and protecting customers from high payments for energy that cannot be used.

EirGrid and SONI have suggested in their response to SEM-21-026 that a concept of firm market access could be considered, where after a certain time period, for example if the period to be made firm in a connection offer has passed, generators could be provided with firm market access which would entitle them to be compensated for redispatch. EirGrid have recently published a Firm Access Methodology Review Paper⁸ proposing a new methodology to schedule Firm Access Quantities (FAQs) in Ireland, which will require relevant regulatory consideration.

Under Article 13(4) of the new Electricity Regulation, TSOs and DSOs are required to report on;

1. The level of development and effectiveness of market-based redispatching mechanisms for power generating, energy storage and demand response facilities;
2. The reasons, volumes in MWh and type of generation sources subject to redispatching;
3. The measures taken to reduce the need for the downward redispatching of generating installations using renewable energy sources or high-efficiency cogeneration in the future including investments in digitalisation of the grid infrastructure and in services that increase flexibility.

⁸ [Firm-Access-Review-2021.pdf \(eirgridgroup.com\)](#)

The Regulatory Authorities will be required to submit this report to ACER and publish a summary of this information with recommendations for improvement where necessary. The Regulatory Authorities intend to engage with the TSOs and DSOs in relation to the timing and structure of this report, noting that the TSOs currently produce an annual report on constraints and curtailment of renewable energy.

Under Article 13(5) (a), of the Electricity Regulation, TSOs and DSOs are required to guarantee the capability of transmission networks and distribution networks to transmit electricity produced from renewable energy sources or high-efficiency cogeneration with minimum possible redispatching. In addition, under the Electricity Directive (Directive (EU) 2019/944), Article 42 relates to the provisions for TSO decisions making for the connection of new generating installations and energy storage facilities and requires the establishment of transparent and efficient procedures for non-discriminatory connection of new generating installations and energy storage facilities to the transmission system.

2.5 Treatment of New Renewable Units in the SEM

SEM-21-027, a Proposed Decision on the Treatment of New Renewable Units in the SEM, was published alongside SEM-21-026. The aim of this Paper was to set out minded to positions and principles to facilitate new renewable units taking part in the SEM without priority dispatch based on the requirements of Article 12 and 13 of the Regulation.

This considered three types of units to which changes would apply;

1. New dispatchable units, which would have previously qualified for priority dispatch, for example Waste to Energy plants, high efficiency CHP, Biomass, Hydro and Hybrid Units (Category 1).
2. Non-dispatchable but controllable units which would have previously qualified for priority dispatch, for example solar and wind units (Category 2).
3. Non-dispatchable non-controllable units, which would have previously qualified for priority dispatch (Category 3).

Proposals

Treatment of new Dispatchable or Category 1 Units

The Paper proposed that no specific changes are required to accommodate units considered dispatchable today without priority dispatch, subject to testing and impact assessment being carried out for such units by the TSOs. As such, dispatchable units are already required to submit PNs, TOD and COD data to the TSOs, this change in priority dispatch eligibility could be facilitated through the current scheduling and dispatch processes in place using the Balancing Market Interface (BMI) and EDIL systems. The main difference for such units, versus units currently eligible for PD, would be that the entirety of their volume would be taken as part of the economic merit order and not treated as priority dispatch.

Treatment of new Wind and Solar or Category 2 Units

In order to accommodate non-dispatchable units without priority dispatch, the Paper proposed that such units would be required to submit PNs, COD and TOD data to

the TSOs and be treated as dispatchable units, with no change to the timing of submission of PNs for different units required at this stage.

Treatment of non-controllable or Category 3 Units

In terms of non-controllable units the Paper proposed that there are few options for treating such units in a manner different to what is applied today, however this represents a small proportion of the total installed capacity, which does not currently take part in the Balancing Market.

Feedback Received

Treatment of new Dispatchable or Category 1 Units

Waste to Energy (WtE) Respondents are generally concerned with the implications of removal of priority dispatch. Highlighting that the removal of priority dispatch is problematic within the context of maintaining R1 certification on an electrical system with high penetration of non-synchronous renewables installed. In that regard, it is different to other renewable generators that find themselves without priority dispatch, which can become dispatch indifferent as long as they are financially compensated. Also arguing that this situation creates a barrier to entry for new WtE facilities, as they would not be able to achieve volume certainty for management of waste volumes.

Treatment of new Wind and Solar or Category 2 Units

There was general support for the proposal for such units to submit PNs, COD and TOD. The main concerns raised focused on system design and implementation, and the fact that current system limitations should not be allowed to determine the direction of future policy. The other main concerns raised by respondents related to the requirements of non-discrimination under the Regulation, where variable controllable renewable generators should not be required to interact with systems designed for predictable dispatchable generators.

A number of respondents are of the view that any requirement for such units to submit FPNs on a like-for-like basis with conventional units would not align with one of the main principles of the Regulation to take into account different technical capabilities of energy sources. In their view, the use of FPNs, which reflect availability, would better reflect the output of such units.

A number of respondents also raised difficulties in relation to managing forecast uncertainty and errors. Clarity on the process and responsibilities for Category 2 units to submit and maintain forecast active power availability was also requested.

There was some agreement that renewable units, no longer availing of priority dispatch, be treated as required to submit PNs, COD and TOD and are treated as dispatchable units including the timing for submissions of PNs.

Treatment of non-controllable or Category 3 Units

Arguments raised in relation to Category 3 units included a dispatch regime for De Minimis generation should be facilitated and that the assertion that De Minimis generations do not have an energy position is unreasonable and incorrect. Special arrangements were proposed for De Minimis generation where it is subject to non-market based redispatch. Another point raised was the fact that non-participant generators delegate their energy position to aggregators under the SEM design, meaning they have an energy position and when constrained or curtailed, are redispatched within the meaning of the Regulation and are entitled to compensation.

SEM Committee Response

Category 1 Units

The Paper proposed that no specific changes are required to accommodate units considered dispatchable today without priority dispatch, subject to testing and impact assessment being carried out for such units by the TSOs.

There are no proposed changes from the position consulted on for these units. However, there are two related issues, which need to be considered;

1. The interaction between the treatment of Category 1 Units and the treatment of constraints and curtailment for new renewables, which is considered further below.
2. Any redispatch hierarchy, which may apply to such units under Article 13(6) where redispatch is non-market based. Under Article 13(6), all renewable generators followed by high efficiency co-generation should only be subject to non-market based redispatch where other solutions would result in significantly disproportionate costs or severe risks to network security. The

effect of this requirement in the SEM context depends on exactly how non-market based redispatch is applied now and in future.

Category 2 Units

In order to accommodate non-dispatchable but controllable units without priority dispatch, the Paper proposed that such units will be required to submit PNs, COD and TOD and be treated as dispatchable units, with no change to the timing of submission of PNs for different units required at this stage.

There are no proposed changes from the position consulted on for these units in terms of an enduring solution. However, following engagement with the TSOs it is clear that full implementation will not be feasible in the short term due to the significant system changes required. Until a number of areas are progressed, including issues raised by respondents such as the systems to be used and specific treatment of renewable units, through workshops led by the TSOs, an initial arrangement will be based on the interim continuation of existing requirements of non-dispatchable but controllable priority dispatch units applied today.

The SEM Committee note that these considerations will require interactions with other future market design programmes that will also require significant engagement with industry along with relevant expertise and resourcing. The SEM Committee requests the TSOs schedule further workshops on an urgent basis in order to consider the detailed issues raised in the proposed Decision in this area with interested stakeholders.

Category 3 Units

In terms of non-controllable units, the Paper proposed that there are few options for treating such units in a manner different to what is applied today.

There are no proposed changes from the position consulted on for these units.

Proposals

Treatment in Energy Balancing

It was proposed that new units without priority dispatch which are dispatched away from their ex-ante market positions for energy balancing reasons should be considered in dispatch on an economic basis like any other instance of balancing

energy, accounting for system security considerations. Such units would be dispatched for balancing energy in merit order with other units and these would be treated as energy actions. 'Balancing energy' in the European Union Internal Electricity Market means energy used by Transmission System Operators (TSOs) to perform balancing and provided by the balancing service provider (BSP) and this relates to energy actions in the SEM.

Treatment of Bids and Offers – Commercial Offer Data

In terms of the treatment of COD for new units, it was proposed that where new renewable units have the same COD, the optimal approach would be to pro-rate the dispatch down across any units with the same COD and that this should be considered in the TSOs' submission for implementation.

Feedback Received

Treatment in Energy Balancing

There was general agreement that where dispatch is on a market basis, i.e., excluding redispatch actions, namely constraint and curtailment, that dispatching new units, without priority dispatch, away from PNs should be done on an economic basis in a non-discriminatory and transparent fashion from the same merit order as the rest of the balancing market, accounting for system security considerations.

Treatment of Bids and Offers – Commercial Offer Data

There were limited comments on this proposal. One respondent noted that it is possible for two non-priority dispatch renewables to be constrained due to the same network issue but when it comes to the flagging and tagging methodology only one is flagged and compensated as per its complex COD whereas the other unit is compensated as per its simple COD.

SEM Committee Response

In relation to treatment in energy balancing, the view of the SEM Committee's minded-to position presented in SEM-21-027 has not changed, in particular for the enduring treatment of new renewable units. However, as stated above, following further engagement with the TSOs it appears this may not be feasible for an interim period due to the significant system changes required. The SEM Committee

requests the TSOs schedule further workshops on an urgent basis in order to consider the detailed issues raised in the proposed Decision in this area with interested stakeholders, including any interim solutions.

On the treatment of bids and offers, the SEM Committee is of the view that this issue may not impact on the interim treatment mechanism outlined in this Paper, but on an enduring basis, there should be no differentiation between different unit types in the market. This issue will be considered through the TSO workshops to establish the appropriate approach to the detailed treatment of new renewable units.

Consultation Proposals

Treatment of redispatch (Constraints and Curtailment)

Curtailment

The Paper proposed that curtailment would ideally continue to be applied on a pro-rata basis to all non-synchronous units regardless of Priority Dispatch status. It was noted however that the TSOs have raised concerns with the continued application of pro-rata curtailment while certain units are considered in an economic merit order for constraints and energy balancing and the difficulties this would present in a co-optimised scheduling and dispatch process.

Constraints

It was proposed that constraints would be applied to all non-priority dispatch units based on a merit order based on the bids and offers of such units, accounting for operational constraints and system security. This would involve either, a review of the BCoP/BMPCoP to allow units to incorporate support costs into bids and offers, or, based on decisions in SEM-21-026, a separate compensation mechanism for support.

The alternative in terms of constraints would be to extend the current treatment for priority dispatch units today through pro-rata application within a constraint group.

Treatment of Bids and Offers and Application of BMPCoP

The Paper considered the application of bids and offers to such units along with the Balancing Market Principles Code of Practice, proposing that different rules for Bid-Offer Acceptance, or any changes to their timing or classification; do not need to be

developed in order to accommodate new renewable units in the market. The Paper acknowledged that changes to the BMPCoP may be required to accommodate different unit types as a result of new renewable units taking part in the market without priority dispatch.

Feedback Received

Treatment of redispatch (Constraints and Curtailment)

Treatment of curtailment

Renewable wind and solar generators note that if non-priority dispatch generators, given the legacy levels of curtailment existing due to priority dispatch generation, were considered to be subject to a merit order for redispatch for curtailment, the level of redispatch would be material, with a limited number of new generators to resolve the issue.

There was general support for the proposal to apply curtailment on a pro-rata basis. However, WtE units argue that this would impact on their place in the Priority Dispatch hierarchy and could result in priority dispatch WtE being constrained in advance of curtailment of non-priority dispatch renewables.

The TSOs have also raised concerns in terms of the feasibility of implementation of a separate treatment of constraints and curtailment to such units and suggest that this issue is discussed further in the industry workshops, once there is clarity on the compensation arrangements under SEM-21-026.

Another respondent noted that the key issue remains whether the System Operators will be able to amend or revise their systems to enable the integrated scheduling system to treat redispatch for constraints and curtailment differently and also with different approaches, given the SO's workshop on 1 July 2021 suggested the SEM systems cannot deliver this differentiated approach.

Treatment of constraints

In relation to the proposal for merit order-based approach for constraints, a significant number of respondents stated it would result in substantially higher constraint levels for new units without priority dispatch in comparison to those existing units with priority dispatch. New or in development projects have raised

concerns on how this will impact their investment options and the difficulties it causes without the guarantee of compensation levels up to support.

Generally, the view of the wind industry is that constraints should be non-market based and applied pro-rata between old and new priority dispatch units. The main argument is that if constraints are 'grandfathered' there will be an unreasonable level of constraints on new units. The impact of this does depend on the application of the BCoP/BMPCoP and firm access policy.

WtE units argue that if constraints are applied pro-rata, it will introduce a perverse change to the Priority Dispatch hierarchy, which might see them redispatched before non-priority dispatch renewables. One respondent is of the view that the principles of Article 13(1) are clear – redispatch actions should be market based where possible. Stating there is adequate competition for most constraints on the all-island network, and as a result, non-priority dispatch generators should be allowed to compete on a market basis.

A number of respondents support a market-based treatment and there are some different suggestions around how to implement this, including revisions to the BCoP/BMPCoP. As well as the view that redispatch for constraints should be market-based as it sends an appropriate marginal signal regarding the utilisation of available network for new generation development.

Treatment of Bids and Offers and Application of BMPCoP

A large number of respondents in this area argue that changes should be made to the BMPCoP to ensure that new renewables are able to bid in a price for redispatch that represents their opportunity cost, including the impact of any lost subsidies, rather than bidding on a cost reflective basis for short run marginal costs. Alternatively, respondents suggest that this should not apply to new renewable units with their bids based on simple offers only.

Respondents also argue that the BMPCoP was not sufficiently consulted on to include renewable units and was developed in a scenario that did not anticipate dispatchable wind.

SEM Committee Response

Treatment of Redispatch (Constraints and Curtailment)

The SEM Committee proposed in SEM-21-027 that new renewable units would be required to submit bids and offers for constraints and be treated in a market-based merit order with other non-priority dispatch units, prior to application of constraints to priority dispatch units. The SEM Committee also indicated a preference for a continued pro-rata approach to curtailment, if this could be facilitated in systems.

A number of issues were raised by respondents in relation to the application of this approach in the short term and also by the TSOs in relation to the difficulties in optimising the scheduling and dispatch process with a different approach for particular units for constraints and curtailment.

Following further engagement, the TSOs have again highlighted significant challenges in relation to the implementation of any enduring solution. As noted above, it is clear that full implementation will not be feasible in the short term.

On this basis, the SEM Committee is of the view that for an interim period, until a number of areas are progressed, the treatment of constraints should continue on a pro-rata basis within a constraint group and curtailment should continue to apply to all units on a pro-rata basis overall.

The points in relation to the impact of this approach on the existing Priority Dispatch hierarchy are acknowledged and the Regulatory Authorities will consider with the TSOs whether there may be scope for mitigation in appropriate cases. The impact of the pro-rata application of redispatch between existing and new units has however been reflected in the immediate compensation arrangements set in Section 2.3, whereby all units will retain their ex-ante revenue for constraints and curtailment until such time as there is a change in the approach to redispatch which may impact on the value of Priority Dispatch rights.

The SEM Committee remains of the view that the intent of the Regulation is to introduce market-based solutions in so far as possible, and that the application of redispatch on a merit order basis to new units without priority dispatch may provide appropriate signals for generation to locate, for example where there are less

constraints. It is acknowledged however that there are a number of limitations, which restrict such an approach at present;

1. The development of systems and the detailed design for treatment of new renewable units without priority dispatch.
2. The temporal issue of new renewable generation being in the minority compared to the volume of priority dispatch generation, which is expected to phase out over time due to significant modifications or voluntary cessation of Priority Dispatch, while the volume of new commissioned generation increases. This means that the impact of a merit order-based approach to redispatch on new units would be less over time.
3. The development of a firm access policy/guarantee of delivery, which will provide greater certainty and transparency to new generation where compensation in the SEM is linked to firmness.

The SEM Committee is of the view that the most appropriate approach is to continue pro-rata redispatch (for both constraints and curtailment), with the intention to transition to merit order based redispatching, applied to non-priority dispatch units prior to priority dispatch units in the medium term. This transition will need to consider the development of TSO systems to accommodate this treatment of new units and the interactions with other future market design programmes. No such change to treatment in this regard is likely before at least 2026.

Application of BMPCoP

As set out earlier in this Paper, the SEM Committee is of the view that based on the approach for implementation of compensation arrangements under Article 13(7) of the Regulation, no immediate changes to the BMPCoP are required to facilitate new renewable units in the SEM.

This is not to say that a review of the BMPCoP in this area will not take place. This review will need to consider the modalities of the submission of COD, both complex and simple, by non-priority dispatch renewable units to facilitate TSO scheduling and dispatch. Such work will progress as appropriate in light of the TSOs' workshops on the treatment of new units.

2.6 Implementation

The SEM Committee's minded-to positions presented in SEM-21-027 have not changed, in particular for the enduring treatment of new renewable units. However, following engagement with the TSOs it is clear that full implementation will not be feasible in the short term due to the significant system changes required. A correct implementation for enduring solutions will require significant engagement with industry along with considerations and interactions in line with other future market design programmes such as System Service Future Arrangements, adjustments to the wind dispatch tool, and the integration of storage units to TSO dispatch systems.

The SEM Committee is of the view that for an interim period, until these system issues are resolved, the current operation of the system will be maintained until the necessary system changes are in place. Until such time, the treatment of constraints should continue on a pro-rata basis within a constraint group and curtailment should continue to apply to all units on a pro-rata basis overall.

The Regulatory Authorities will engage with the TSOs to develop a process to accommodate ongoing remuneration associated with constraints and curtailment based on the approach set out in this Paper. Compensation will also be provided on an ex-post basis from January 2020 based on the principles outlined in this Paper.

In the context of the current and expected next two year's high prices, the SEM Committee has decided to implement and compensate any payments for curtailment to tariff year 2024/25.

3. Next Steps

The SEM Committee requests that following publication of this Paper, further workshops are scheduled on an urgent basis in order to progress the detailed solutions for treatment of new renewable units in the SEM in line with the positions set out in this Paper. The Regulatory Authorities will engage with the TSOs in relation to the format of these workshops. While the SEM Committee notes that full system implementation is not feasible in the short term, the Regulatory Authorities will continue to engage with the TSOs in relation to implementation of the Decisions set out in this Paper and will provide updates to interested stakeholders in this area.

To reflect the jurisdictional nature of the support schemes present across the SEM, the decision in relation to the financial compensation related to foregone financial support will be made jurisdictionally. This approach allows for further engagement with the respective Department of Government in both market jurisdictions.

The SEM Committee requests SEMO to raise a Modification to reflect the SEM Committee's decision regarding the treatment of curtailment set out in this paper.