



Proposed Decision Paper on Treatment of
Curtailement in Tiebreak Situations (SEM-12-090)

A Response by EirGrid plc.

November 2012

Executive Summary

EirGrid welcomes the opportunity to respond to the SEM Committee's proposed decision paper on the Treatment of Curtailment in Tiebreak Situations (SEM-12-090).

EirGrid would like to see:

1. A recognition by the Committee that in adopting a dispatch based approach, and in proposing a decision which will in the medium term no longer remunerate curtailed energy, that a significant proportion of the commercial revenue stream for wind generators will now be determined by the dispatch decision. This represents a fundamental shift from the more general SEM philosophy whereby all firm generators at least were not commercially affected by the dispatch decision.
2. A recognition by all parties, but particularly the Committee, that if a dispatch ruleset is used to determine constraint and curtailment that it represents, and can only ever represent, a proxy assessed on an *ex ante* basis. EirGrid would also like to see the Committee's support in the ongoing implementation of any such ruleset and an acceptance and recognition by all parties that it is the ruleset and its implementation which provides the definition of constraint and curtailment.
3. Greater definition and clarity as to what is proposed in respect of:
 - The determination of the basis for the payment of curtailment under the 'curtailment DBC pot' and the defined curtailment limit;
 - The effect curtailment in general, and unpaid curtailment in particular, has on the 'Availability' of the generators to the Market Schedule and therefore to the setting of the market price of energy; and
 - The management of the tapering mechanism whereby the payment for curtailment is to be shared out among generators on a proportionately decreasing basis.

Suggestions as to what might be intended and practicable suggestions for implementation are included in the main body of the response.

4. Amendment of the proposed decision to:
 - Have the mechanism (for the assessment of the underlying curtailment pot) commence only from 1 January 2016 rather than provide for the possibility that it commence at some unknown time before then; and
 - Make clear that consistent with this, that the mechanism for reduced payment for curtailment will only commence in the Target Model world, and from the commencement of the Target Model.

The decision should therefore make it clear that no changes will be made to SEM in respect of the proposed decision with all implementation to be in the context of the Target Model. Its implementation therefore is a requirement to be factored into the design of the Target Model.

EirGrid would note that:

5. In its view such issues would have been better dealt with through market mechanisms than through dispatch;
6. The tapering mechanism as proposed to transition from 2016 to 2020 adds complexity and with such complexity inevitably cost in giving effect to it. EirGrid believes the SEM Committee should give serious consideration to dropping the tapering mechanism.

EirGrid believes that:

7. It is welcome that this workstream now looks to be drawing to a close and that in signalling the non payment for curtailment through market mechanisms at some point in the future that the SEM Committee is doing so well in advance.
8. The market design ought to complement and support government energy policy on the island of Ireland and must be designed such that in combination with direct policy supports both Ireland's and Northern Ireland's energy policy goals can be delivered.

EirGrid would welcome the opportunity to discuss its response with both the SEM Committee and its project team.

Introduction

1. EirGrid welcomes the opportunity to respond to the SEM Committee's proposed decision paper on the Treatment of Curtailment in Tiebreak Situations (SEM-12-090). As the Committee notes the process of considering these issues commenced in February 2008 and by the time a final decision is made will have been running for 5 years, prior to any period of implementation. EirGrid has worked closely with the Committee throughout this process and has sought to support it in its deliberations. EirGrid looks forward to the matters as addressed in this paper being brought to conclusion.
2. In the paper the SEM Committee welcomes views from stakeholders on the proposed option for implementation and the proposed operational ruleset for distinguishing episodes of constraints from those of curtailment. The following three questions are posed:
 - a. Do you agree with the proposed decision of the SEM Committee? If not please set out your reasons why and with reference to the five criteria identified by the Committee
 - b. Do you consider that the proposed decision has been clearly defined? If not could you please provide comment on how this could be addressed, including the outline of the *defined curtailment limit*
 - c. Do you find the proposed ruleset for the differentiation of curtailment events from those of constraints amenable? If not, please set out why. In addition could you please provide additions/modifications that could be made to the ruleset to facilitate differentiation

In our response we will address these in reverse order.

The Proposed Ruleset for the Differentiation of Constraint and Curtailment

3. The ruleset for distinguishing constraint and curtailment events in dispatch, proposed by EirGrid and SONI, is annexed to the SEM Committee's proposed decision paper. The ruleset is, of course, as acknowledged in the ruleset a proxy for the definition of actual constraint and curtailment events and as EirGrid makes clear in the annex a differentiated approach to constraint and curtailment can only

be adopted where it is the ruleset itself which defines an event as being constraint or curtailment.

4. The ruleset is based upon the best *ex ante* judgement available supported by contingency analysis software and system stability assessment tools. EirGrid and SONI have thought long and hard about alternatives, including system driven alternatives, but ultimately determined that that which they have proposed could not be significantly improved upon. EirGrid and SONI have always pointed out that any arrangement whether it is market based or in dispatch will represent a proxy to a determination as to whether a dispatch down event was in fact constraint or curtailment with constraints and curtailment events typically, and increasingly going forward, layering themselves on top of each other such that constraints may mask the requirement for curtailment and curtailment mask constraints which may otherwise be present.
5. An *ex ante* based assessment where decisions must be made in real time based upon the information available at that time will inevitably represent a much less sophisticated proxy than in a situation whereby the elements are analysed *ex post* and dealt with by means of market settlement and market systems. Moreover, if the commercial treatment is dependent upon the classification of events as either constraint or curtailment, as is now proposed, this means that such an estimated proxy is having a direct commercial impact upon generators and their payment streams.
6. This represents a change to the general principle that has been present since the inception of SEM as an unconstrained market that the commercial payment streams to generators, at least generators with firm access, were 'blind' to the dispatch decision and kept whole through market mechanisms.
7. While EirGrid and SONI will of course operate such rulesets through dispatch if that is the final decision of the SEM Committee, and will do so professionally and to the best of its ability cognisant of its duty of non discrimination, it must be on the understanding that it is the ruleset which will itself be the determinant as to whether an event is classified as constraint or as curtailment. EirGrid will therefore be looking for the SEM Committee to support and ultimately endorse and stand over the final ruleset as determined.

The Definition of the Proposed Decision

8. EirGrid does not believe that the proposed decision as outlined has been sufficiently defined to enable it to be implemented as it stands. In earlier

engagement with the SEM Committee EirGrid indicated that the decision was likely to be implementable but implementable only if sufficient clarifications and simplifications were made and that such clarifications represented distinct, and sometimes significant, policy decisions in and of themselves.

9. We therefore believe that if the SEM Committee is to come to a decision, and for that decision to be a final one, that such clarifications must be provided as part of that decision.
10. In this response we concentrate on three areas where such clarity would be beneficial:
 - a. The determination of the basis for the payment of curtailment under the 'curtailment DBC pot' and the defined curtailment limit;
 - b. The effect curtailment in general, and unpaid curtailment in particular, has on the 'Availability' of the generators to the Market Schedule and therefore to the setting of the market price of energy; and
 - c. The management of the tapering mechanism whereby the payment for curtailment is to be shared out among generators on a proportionately decreasing basis.

We also outline a number of amendments we believe need to be made to the ruleset.

The determination of the basis for the payment for curtailment and the defined curtailment limit

11. In the proposed decision in the SEM Committee's paper the Committee discusses the "curtailment DBC pot" (the level of DBC compensation which was paid out to wind generators for curtailment). Further clarity is necessary in order to understand the "curtailment DBC pot" as proposed as under the SEM arrangements there is no direct measurement of the DBC 'paid' to curtailed generators in SEM.
12. EirGrid sees two potential measurements which may meet the intent of the SEM Committee in respect of its measurement of the 'cost' of curtailment under the "curtailment DBC pot":
 - a. The first is by reference to the SMP at the period when curtailment events take place¹; while this is not a 'DBC cost' *per se*. it is nonetheless a measure of the *value* of the payment to the generator for energy which was curtailed and therefore non utilisable;

¹ This could be the SMP assuming the curtailed generator to be available to the market or not available to the market.

- b. The second is by reference to some measure of the cost of the plant which had to be constrained on in periods where curtailment events occurred.²
13. The first of these is the better measure of the 'value' to the curtailed windfarm of being paid for its energy even when curtailed; the second is the better measure of the 'DBC cost' to consumers of paying for curtailed energy³. EirGrid seeks clarity from the SEM Committee as to which is intended or indeed whether SEM Committee has an alternative view. Should the SEM Committee's interpretation be by reference to the cost of the constrained on plant then the SEM Committee should also clarify on what basis that cost will be assessed.
14. In relation to the defined curtailment limit which is either when 30% penetration of renewables or 2016 is reached, EirGrid does not believe implementation prior to 2016 to be practicable and therefore that the first of the rules which provides for a potentially earlier commencement date should be removed.

Curtailed Generation and its Availability to the Market Schedule

15. The proposed decision is silent on the question as to whether curtailed generation is 'available' to the market schedule for the setting of the energy market price; this is both in the longer term post 2020 following such times as there is no payment for curtailment and in the tapering mechanism.
16. Post 2020 it would be assumed by us that it is not the SEM Committee's intent to have generation which is not utilisable (curtailed) contribute to market price setting (giving rise to potentially lower inefficient prices which do not reflect the underlying marginal cost of energy) and that therefore such generation is unavailable to the market. The SEM Committee's intent should however be clarified in its decision.
17. In the period between 2016 and 2020 it is not clear whether generation which is curtailed should be deemed to be available to the market schedule for the purposes of price setting (as it is today).
18. In the case where the value of curtailment is defined by reference to SMP (see 12(a) above) this is material for the implementation of the mechanism; where it is defined by reference to the costs of constrained on plant less so. We are assuming that if the intention is that curtailed generators are not available post 2020 and do not therefore contribute to the market price that they are also not available in the

² Plant are constrained on in all periods for the provision of reserve by in merit plant and other reasons. One could consider the plant constrained on to meet curtailment as being the marginal plant constrained on or the cost of the 'average' plant constrained on.

³ The overall cost to consumers is also affected by the SMP effect in the event that curtailed generation is 'unavailable' to set market prices (see below).

2017-2019 period also (this even though they will be paid for their curtailed energy to some extent). Nonetheless the SEM Committee needs to clarify this point in its decision.

19. EirGrid does not believe it is practicable to seek to mirror the level paid curtailed generation with the level of curtailed generation 'available' to the market during the tapering period: therefore the decision can only be in our view that during that period that all curtailed wind energy is either 'available' based upon its availability signal (Firm) or dispatch quantity (non firm) or that it is 'not available'.
20. If the value of curtailed energy is measured by reference to SMP in 2016 then this will almost certainly be by reference to SMP assuming curtailed generators are 'available': amending this for 2016 to provide that they would be available in 2016 for the purpose of market settlement in 2016 but would not be available for the purposes of determining the 'DBC Curtailment Pot' would not be straightforward. The SEM Committee should clarify and confirm this in its decision.

The Management of the Tapering Mechanism

21. In the proposed decision the SEM Committee outlines its views on the application of a tapering mechanism whereby payment for curtailment against the defined 'DBC Curtailment pot (see 1 above) would be tapered on a basis which would see 75% of the value paid out in 2017, 50% in 2018 and 25% in 2019.
22. As the level of curtailment for a given year will be unknown until after the event the mechanism as proposed will give rise to the need for an *ex post* correction mechanism. All generators who are curtailed would in the first instance be paid for energy in the market adjusted for an *ex ante* expected level of payment (potentially 75%, 50% and 25% respectively of the SMP) but would be subject to an *ex post* correction mechanism which would require either suppliers to top up or generators to pay back such monies as part of a re-settlement process such that the position consistent with that outlined by the SEM Committee was achieved.
23. This would give rise to the need for an additional re-settlement mechanism and additional collateralisation to ensure the payments could ultimately be made. It would be likely to reduce certainty to participants at any point in time as to the cost of the energy they had purchased/ sold.
24. EirGrid believes the SEM Committee should give serious consideration to the dropping of the tapering mechanism given the considerable additional complexity and cost it introduces while not in EirGrid's view being fundamental to the SEM Committee's general intent of its decision, as understood by EirGrid, that curtailed wind will not be compensated in the market from some defined point in the future.

EirGrid's Position on the SEM Committee's Proposed Decision

25. EirGrid would again note that it believes these matters are better addressed through market mechanisms than through dispatch. To address them in dispatch cuts against the general principle of protecting party's commercial positions from dispatch decisions which need to be taken in real time to ensure the safe and secure operation of the power system.
26. We would note that the tapering mechanism as proposed to transition from 2016 to 2020 adds significant additional complexity and with such complexity inevitably cost in giving effect to it. We would note that its implementation will be in the Target Model environment and EirGrid believes all changes should be made only as part of the Target Model development with no changes being made specifically to SEM. EirGrid believes the SEM Committee should give serious consideration to dropping the tapering mechanism.
27. Finally, EirGrid believes that the overall payment streams, whether in the market or in supports, must be such that they enable both Ireland and Northern Ireland's energy policy goals, including renewable policy targets, to be delivered. Therefore what is ultimately of importance is whether the overall arrangements which are in place are consistent with the delivery of the policy objectives both North and South.
28. The SEM Committee's support for the TSOs' DS3 programme which seeks to provide both the technical amendments and commercial incentives to deliver a power system fit for the challenges of the future and with lower levels of curtailment is important in this regard when it comes to the management of curtailment and aiding both Ireland and Northern Ireland in meeting their 40% renewable targets.

Conclusion

29. In conclusion EirGrid welcomes the SEM Committee's proposed decision as representing if not the end, then at least the beginning of the end of what has been a lengthy process.

EirGrid wishes to see the final decision:

- Provide support for the dispatch ruleset as set out by EirGrid and SONI and support for the implementation of that ruleset including recognition that the operation of the ruleset is the defining characteristic of a constraint or curtailment event;
- Provide clarity in the areas identified by EirGrid as to where it believes further clarity is required – in particular the 'DBC pot', the

Availability of curtailed generation to the market schedule and the Tapering Mechanism;

- Amend the proposed path to delivery to rule out options which are either non implementable or impractical to implement (i.e. no implementation before 2017 and in the Target Model world). This should include a re-consideration by the Committee as to the value of the proposed tapering mechanism. EirGrid believes the SEM Committee should give serious consideration to the dropping the tapering mechanism;
- Form part of an overall approach by the SEM Committee to deliver market arrangements which are consistent with energy policy.

EirGrid would welcome the opportunity to discuss its response with both the SEM Committee and its project team.