

SEM Committee

Principles of Dispatch and the Design of the Market Schedule in the Trading and Settlement Code

Consultation Paper

Criteria for Qualification of Hybrid Plant for Priority Dispatch in the SEM

SEM/12/056

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1 Executive Summary

- 1.1 In the Decision Paper on Principles of Dispatch and the Design of the Market Schedule on the Trading and Settlement Code (SEM-11-062), the SEM Committee decided that a hybrid plant¹ will be considered eligible for priority dispatch when it can be shown to emit fewer carbon emissions (tCO₂/MWh) than an appropriate reference thermal plant deemed to be displaced by the qualifying hybrid plant.
- 1.2 It was also stated that the threshold for qualification for priority dispatch for hybrid plant should be set a sufficiently high level such that parties genuinely committed to using renewable fuel sources in the context of Directive 2009/28/EC attract the benefit of priority dispatch. In its decision SEM Committee stated its view that a reasonable 'de-minimis' threshold of 10% renewable electricity should be produced from the hybrid plant for the defined period in which it wishes to avail of priority dispatch in order to ensure a minimum contribution of renewable electricity from the hybrid plant.
- 1.3 This consultation paper clarifies the criteria set out in section 4.5 of the Decision Paper in relation to:
- The appropriate reference thermal plant deemed to be displaced by the qualifying hybrid plant,
 - Carbon emissions for reference plant,
 - Timeline for the assessment of carbon emissions,
 - The methodology to be used for the assessment of an applicant hybrid plant.
- 1.4 For the purposes of defining a mid merit reference plant the SEM Committee proposes basing its decision on the work previously carried out under the directed contracting process.
- 1.5 In exceptional circumstances hybrid status may not be requested for a full calendar year. This paper sets out the views of the SEM Committee in how this can be accommodated within the current framework.

¹ A hybrid plant is one which has a proportion of its output classed as renewable.

2 Background

- 2.1 Having regard to Article 16(2) of Directive 2009/28/EC the SEM Committee considers that priority dispatch should be afforded to qualifying hybrid plant to the extent that this is consistent with the spirit and intention of the Directive.
- 2.2 The question of how 'hybrid' plant would be treated in terms of priority dispatch requirements was raised in Section 4.9 of SEM-09-073 - Consultation Paper regarding principles of dispatch and the design of the Market Schedule in the Trading and Settlement Code, July 2009. Hybrid generating units were described as units which have a proportion of their output which is classed as renewable.
- 2.3 The Decision Paper on the Principles of Dispatch and the Design of the Market Schedule on the Trading and Settlement Code (SEM-11-062) ("the **Decision Paper**") sets out that the definition/application of 'hybrid' should not serve to result in generators using minimal amounts of renewable fuel to secure priority dispatch status and a perverse incentive in this regard. Rather the threshold for qualification for priority dispatch for hybrid plant should be set a sufficiently high level such that parties genuinely committed to using renewable fuel sources in the context of Directive 2009/28/EC attract the benefit of priority dispatch.
- 2.4 In addition, the SEM Committee set out in its decision that the approach to qualification for priority dispatch for hybrid plant should take account of the environmental impacts of the operation of such plant. The SEM Committee decided to base a hybrid plant's entitlement to priority dispatch on the estimated impact of a given plant on emissions (CO₂) from power generation over a defined period.
- 2.5 The Decision Paper set out how this was to be implemented:
- A hybrid plant will be considered eligible for priority dispatch when it can be shown to emit fewer carbon emissions (tCO₂/MWh) than an appropriate reference thermal plant deemed to be displaced by the qualifying hybrid plant. The SEM Committee considers that a mid merit plant operating in the SEM is the appropriate reference plant in this context.
 - The actual carbon emissions for the reference plant are available through work already carried out by the RAs on an annual basis. The ex-post, actual carbon emissions information available for the reference plant must be for the most recent full twelve months of operation for which the RAs have all appropriate information.

- The timeline for the assessment will be driven in principle by the timeline for the publication of audited emissions (CO₂ in t/MWh) figures regarding the power generation sector by the Environmental Protection Agency (EPA) in Ireland and by the Department of the Environment (DoE) in Northern Ireland. On that basis, the assessment will take place in the second quarter of each year.
- For the first assessment for an applicant hybrid plant, an assessment using estimated information can be carried out. Parties with no past information can qualify for priority dispatch for the next defined period based on a modelled estimate of their running for the subsequent period coupled with estimates of the associated average carbon emissions associated with that modelled running. The model used to calculate estimates of Dispatch Balance Costs (DBC) by EirGrid will be employed to model estimated running by relevant plant for the period in question. For this modelling exercise average emission figures for existing hybrid plant will be based on available verified figures from the EPA and the DoE. Where such verified figures are not available, the applicant plant shall provide its best estimate of carbon emissions setting out the basis and rationale for this estimate.
- Parties that have past information for less than one defined period can qualify on the basis of a combination of actual information and estimates.
- For subsequent assessments actual operational information for the relevant twelve month period will be used.
- Carbon emissions arising from the renewable fuel inputs to such plant will be deemed to be equal to zero. This is considered appropriate given the treatment of CO₂ emissions from biomass by the EU.¹⁵
- Where parties are shown, on the basis of audited ex-post information submitted to the RAs for review not to have reached the qualifying threshold for a defined period they forego qualification for priority dispatch for the next defined period.
- In addition to the above, the SEM Committee is of the view that a reasonable 'de-minimis' threshold of 10% renewable electricity should be produced from the hybrid plant for the defined period in which it wishes to avail of priority dispatch in order to ensure a minimum contribution of renewable electricity from the hybrid plant. This also ensures minimum contribution to RES-E targets is being made by such plant.

2.6 This consultation paper sets out the proposals for consideration on the process for applying for qualification for priority dispatch for hybrid plants.

3 Definition of mid-merit reference thermal plant

3.1 In the Decision Paper the SEM Committee decided that:

- A hybrid plant will be considered eligible for priority dispatch when it can be shown to emit fewer carbon emissions (tCO₂/MWh) than an appropriate reference thermal plant deemed to be displaced by the qualifying hybrid plant. The SEM Committee considers that a mid merit plant operating in the SEM is the appropriate reference plant in this context.

3.2 For the purposes of defining a reference plant only, the SEM Committee is of the opinion that a mid merit plant should be derived from the work carried out in the directed contracts process. Given the above information a mid merit plant would be one that runs between 910 – 6221 hours per year.

3.3 The “*Directed Contracts – 2011/2012 Quantification and Pricing Decision Paper*” (SEM-11-045) sets out definitions on each of the three products available:

- **Baseload Product:** For Trading Periods at the Contract Quantity arising in all hours.
- **Mid-merit Product:** For Trading Periods at the Contract Quantity during the hours beginning at 07:00 and ending at 23:00 on Business Days and for Trading Periods on days that are not Business Days at 80% of the Contract Quantity.
- **Peak:** For Trading Periods arising during the hours beginning at 17:00 and ending at 21:00 on all days during, October, November, December, January, February and March at the Contract Quantity.

3.4 On this basis:

- A Base load plant would run for up to 8760 hours per year
- A mid merit plant would run for up to 6221 hours per year
- A peak plant would run for up to 910 hours per year

3.5 The SEM committee is also of the opinion that the reference plant should be based on metered generation as this directly relates to actual carbon output.

3.6 **Question 1: Does the respondent agree with the proposals put forward for defining a mid merit plant for the purposes of the reference thermal plant deemed to be displaced by the qualifying hybrid plant?**

4 Carbon emissions for reference plant

4.1 In the Decision Paper the SEM Committee decided that:

- The actual carbon emissions for the reference plant are available through work already carried out by the RAs on an annual basis. The ex-post, actual carbon emissions information available for the reference plant must be for the most recent full twelve months of operation for which the RAs have all appropriate information.

4.2 The SEM Committee will make the assessment for the reference plant based on metered generation for the calendar year 2011.

4.3 It is the stated view of the SEM Committee that the approach to qualification for priority dispatch for hybrid plant should take account of the environmental impact, and that such plant should impact positively on greenhouse gas emissions.

4.4 Section 3 set out the criteria for assessing a mid-merit plant, however the Decision Paper also set out that a hybrid plant should be considered eligible for priority dispatch when it can be shown to emit fewer carbon emissions (tCO₂/MWh) than an appropriate reference thermal plant deemed to be displaced by the qualifying hybrid plant.

4.5 Taking into account the SEM Committee's view on emissions, the SEM Committee proposes the following two options for defining the reference thermal plant that would be displaced by a hybrid plant availing of Priority Dispatch:

- Option 1: In order to meet the aim of reducing emissions the most polluting mid-merit plant (as defined under the guidelines in section 3) should be used in deciding the appropriate reference plant deemed to be displaced by the qualifying hybrid plant. The SEM Committee are considering this option as a proxy for the plant deemed to be displaced in dispatch for the purposes of Carbon Emissions
- Option 2: The average carbon emissions from all plants defined as mid-merit for 2011 should be used. This would contribute to the carbon reduction aim stated in the Decision Paper and takes into account the carbon efficiency of all the units that are categorised as mid-merit plants.

4.6 The SEM Committee proposes retaining the reference plant and emissions factor for 3 years, with an option to extend this period.

- 4.7 **Question 2: Does the respondent agree with the proposals put forward for evaluating the carbon emissions based on metered generation?**
- 4.8 **Question 3: Does the respondent agree with the proposal to use the most polluting plant that falls under the definition of mid merit as set out in section 3?**
- 4.9 **Question 4: Does the respondent agree with the proposal to retain the reference plant for a number of years?**

5 Eligibility for Priority dispatch: Timeline for the assessment of carbon emissions

5.1 In the Decision Paper the SEM Committee decided that:

- The timeline for the assessment will be driven in principle by the timeline for the publication of audited emissions (CO₂ in t/MWh) figures regarding the power generation sector by the Environmental Protection Agency (EPA) in Ireland and by the Department of the Environment (DoE) in Northern Ireland. On that basis, the assessment will take place in the second quarter of each year.

5.2 The SEM Committee is satisfied that this is achievable for all plant wishing to avail of priority dispatch status.

5.3 **Question 5: The SEM Committee are seeking views on the proposal set out above.**

6 Eligibility for Priority dispatch: The methodology to be used for the assessment of an applicant hybrid plant.

6.1 In the Decision Paper the SEM Committee decided that:

- For the first assessment for an applicant hybrid plant, an assessment using estimated information can be carried out. Parties with no past information can qualify for priority dispatch for the next defined period based on a modelled estimate of their running for the subsequent period coupled with estimates of the associated average carbon emissions associated with that modelled running. The model used to calculate estimates of Dispatch Balance Costs (DBC) by EirGrid will be employed to model estimated running by relevant plant for the period in question. For this modelling exercise average emission figures for existing hybrid plant will be based on available verified figures from the EPA and the DoE. Where such verified figures are not available, the applicant plant shall provide its best estimate of carbon emissions setting out the basis and rationale for this estimate.
- Parties that have past information for less than one defined period can qualify on the basis of a combination of actual information and estimates.
- For subsequent assessments actual operational information for the relevant twelve month period will be used.

6.2 The SEM Committee does not propose any changes to the assessment criteria as set out in the Decision Paper.

6.3 It is the view of the SEM Committee that where it can be proved that false, misleading or incorrect information has been submitted to gain Priority Dispatch Status the company responsible should be prevented from applying for Priority Dispatch as a hybrid plant for a minimum of five years.

6.4 In addition to this the SEM Committee considers that false, misleading or incorrect information provided to the regulators could be deemed to be a breach of licence by the appropriate Regulatory Authority.

6.5 **Question 5: The SEM Committee are seeking views on the assessment criteria set out above.**

7 Eligibility for Priority dispatch: Temporary Hybrid Status

- 7.1 **It has been brought to the** attention of the SEM Committee that some participants may not wish to operate as hybrid plants for a full calendar year. The SEM Committee is considering allowing for the option of temporary hybrid status for such plant. This section sets out the proposals for the assessment of plants wishing to avail of temporary hybrid status if it were to be adopted.
- 7.2 Where temporary hybrid status is requested, the SEM Committee is of the opinion that an application to the SEM Committee must be made at least 90 days in advance of when the temporary period is due to begin, and notice must also be provided by the generator to SEMO. No subsequent applications will be considered within this 90 day period.
- 7.3 Applying a full 12 month assessment to such a plant could disqualify a plant from seeking priority dispatch. The SEM Committee proposes amending the assessment criteria, as set out in the Decision Paper, to account for this eventuality.
- 7.4 The SEM Committee proposes that the plant availing of temporary hybrid status should be subject to the same assessment criteria as all other hybrid plant as set out in section 6, except that the assessment will be based only on the period that temporary hybrid status has been applied for.
- 7.5 The SEM Committee would like to those wishing to avail of hybrid status will provide data for the full year in line with all other hybrid plant. However, those seeking temporary hybrid status would be required to submit the following data:
- Metered generation for the plant for the full year
 - Carbon emissions for full year
 - Total fuel from renewable sources used over year
 - Periods for which temporary status was requested
 - Metered Generation, Actual emissions data and fuel data must be submitted for the period(s) during which the generator operated under priority dispatch (as a hybrid plant),

- 7.6 In order to be able to accurately assess the emissions during periods where temporary priority dispatch has been requested the SEM Committee are of the view that annual emissions data will be insufficient for this type of plant. Therefore, in addition to the data requirements set out above the SEM Committee requires that those wishing to avail of priority dispatch on a temporary basis to provide independently verified carbon emissions data on a monthly basis, for the whole year.
- 7.7 Failure to supply any relevant information with timeframe could affect their eligibility for hybrid status in the future.
- 7.8 Temporary hybrid status is subject to Regulatory approval and requires all of the above information to make an informed decision, the assessment criteria set out in section 6 will be applied for the periods under which temporary status has been requested.
- 7.9 **Question 6: Does the respondent agree with the proposal for allow plant wishing to avail of temporary hybrid status?**
- 7.10 **Question 7: The SEM Committee are seeking views on the assessment criteria set out above, or any other assessment criteria that could be adopted in such circumstances?**

8 Responding to this consultation

- 8.1 Responses are invited regarding any of the questions raised and all other aspects of the proposals put forward in this Consultation Paper, and should be addressed to:

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Utility Regulator
Queens House
14 Queen Street
BELFAST
BT1 6ED

Or by email to:

andrew.mccorrison@uregni.gov.uk

by 5pm on 17 August 2012.

- 8.2 The SEM Committee intends to publish all comments received. Those respondents who would like certain sections of their responses to remain confidential should submit the relevant sections in an appendix marked confidential together with an explanation as to why the section should be treated as confidential.