Single Electricity Market

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| Final REcommendation Report*Mod\_21\_11: UI Payments for generator units constrained on*02 November 2011 |

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Document History

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| **Version** | **Date** | **Author** | **Comment** |
| 0.1 | 26 October 2011 | Modifications Committee Secretariat | Issued to Modifications Committee for review and approval |
| 1.0 | 02 November 2011 | Modifications Committee Secretariat | Issued to Regulatory Authorities for final decision |

Reference Documents

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| **Document Name** |
| [Trading and Settlement Code](http://semopub/MarketDevelopment/MarketRules/TSC.doc)  |
| [Mod\_21\_11 UI Payments for Generator Units Constrained on](http://semopub/MarketDevelopment/ModificationDocuments/Mod_21_11.doc) |
| [Mod 21\_11\_V2: UI Payments for Generator Units Constrained on](http://semopub/MarketDevelopment/ModificationDocuments/Mod_21_11_V2.docx) |

Relevant Sections

| **In accordance with Section 2.215 of the Trading & Settlement Code, the sections marked applicable will be included in the FRR** |
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| **Modifications Committee Recommendation** | **Applicable** |
| **Background** | **Applicable** |
| **Purpose of Proposed Modification**a.) Justification for Modificationb.) Impact of not implementing a solutionc.) Impact on Code Objectives | **Applicable** |
| **Assessment of Alternatives** | **Applicable** |
| **Working Group and/or Consultation** | **N/A** |
| **Impact on other Codes/Documents** | **N/A** |
| **Impact on Systems and Resources** | **Applicable** |
| **Modifications Committee Views** | **Applicable** |
| **Proposed Legal Drafting** | **Applicable** |
| **Legal Review**  | **Applicable** |
| **Implementation Timescale, Costs and Resources** | **Applicable** |

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# 1 MODIFICATIONS COMMITTEE RECOMMENDATION

## Recommended for approval – Unanimous Vote

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| **Recommended for Approval by the Modifications Committee as follows:** |
| Generator Alternate | Brian Mongan | AES |
| Generator Alternate | Mary Doorly | IWEA |
| Generator Member | Kevin Hannafin | Viridian Power & Energy |
| Generator Member | Andrew Burke | ESBI |
| Supplier Member | Jill Murray | Bord Gáis Energy Supply |
| Supplier Alternate | Philip Carson | Power NI |
| Supplier Alternate | Emeka Chukwureh | Airtricity |
| Supplier Member | Killian Morgan | ESB Electric Ireland |

# 2 Background

The original Modification Proposal was raised by ESB PG and proposed changes to Section 5 of the T&SC. It was received by the Secretariat on 26 May 2011 and initially presented at Meeting 36 on 09 June 2011 where it was deferred pending an Impact Assessment. The proposal was subsequently discussed at Meeting 37 on 09 August 2011, where it was again deferred at the request by the Committee that changes be incorporated in an alternative version of the proposal to reflect the discussion at the Meeting. Version 2 of the proposal was presented at Meeting 38 on 10 October 2011 along side an updated Impact Assessment.

# 3 PURPOSE OF PROPOSED MODIFICATION

## 3A.) Justification for Modification

At present when an Energy Limited generator incurs an uninstructed imbalance for over generation, the payment received is based upon the minimum of SMP and Dispatch Offer Price. As Energy limited plant must have a DOP = €0, this means that there is no payment possible for overgeneration. Overgeneration occurs for two reasons as follows

1. Overgeneration as a result of plant free governing and responding to system frequency. In this case the plant correctly generates above DQ but cannot get compensated.
2. Overgeneration as a result of poor plant performance. In this case, the tolerance bands and the associated DOG provide adequate incentive to remain within the tolerance bands (as for all plant).

## 3B.) Impact of not Implementing a Solution

Without this modification, energy limited generation units which correctly operate in the market and generate above DQ as a result of system frequency variations will not get remunerated which is discriminatory and perverse.

## 3c.) Impact on Code Objectives

This furthers code objectives 3 and 6, “to facilitate the participation of electricity undertakings engaged in the generation, supply or sale of electricity in the trading arrangements under the Single Electricity Market” and “to ensure no undue discrimination between persons who are parties to the Code” respectively.

# 4 assessment of alternatives

One alternative was delivered over the lifespan of the proposal. The original version of the proposal ([Mod\_21\_11](http://semopub/MarketDevelopment/ModificationDocuments/Mod_21_11.doc)) and the Alternative version of the proposal ([Mod\_21\_11\_V2](http://semopub/MarketDevelopment/ModificationDocuments/Mod_21_11_V2.docx)) are available from the SEMO website.

# 5 impact on systems and resources

At Meeting 37, SEMO Alternate presented result of the Impact Assessments, advising that the change will incur a cost of €38,130 excluding testing.

# 6 MODIFICATION COMMITTEE VIEWS

## Meeting 36 – 09 June 2011

At the Meeting the proposer presented the proposal which seeks to correct what they believe to be an anomaly in the market related specifically to energy limited plants. It was explained that variances in frequency can result in slight under or over generation. In the case where a plant under generates within the tolerance bands, SMP is repaid to market. However in the case where a plant over generates within the tolerance bands, the Generator is not reimbursed SMP. The proposer added that no incentive exists for the Generator to over generate as it must remain within the tolerance bands at all times. It was confirmed that the proposal is not related to any recent previous Modifications raised by ESBPG.

MO Alternate advised that the proposal would require a change to the systems.

SO Member advised that DIs are not frequency adjusted, and requested that the proposal be deferred while the SOs asses the change further. Discussion ensued around the cost impact on the Generator given that the cost of water is zero. The proposer advised that there is a financial value associated with the fuel source and the existing situation allocates energy free to the market resulting in an equitable cost to the Generator.

Attention was drawn to the cut-off date of August 5th for Modifications with systems impacts for inclusion in the Intra-Day Trading Release, with recognition that the proposal will not be considered for inclusion in the release as it could not be voted on without the Impact Assessment (IA) result. At the Meeting, an action was placed on SEMO to initiate an IA.

## Meeting 37 - 09 August 2011

SEMO Alternate provided the results of the IA as costing €38,480. SEMO Alternate stated that this proposal warrants similar discussion to that concerning Mod\_37\_10 *Constraint Payments for Energy Limited Units* regarding cost of hydro units. The proposer of both Modification Proposals stated that this proposal is addressing a fundamentally different issue to that of Mod\_37\_10, further adding that it is addressing discrimination in the market.

SO Member stated that there is no incentive for units to stop over generating. The proposer stated that there has to be a penalty for over-generation; however questioned whether the current penalty is excessive. Supplier Alternate suggested that DQ be set equal to AO for energy limited units when governing.

SEMO Member stated that there was no way of flagging in the CMS if a unit is governing and that with DQ=AO the unit would still get SMP if it generates outside the tolerance band, as is proposed by the current modification. RA Member stated that the Committee needs to be clear as to why this proposal is the correct solution of this issue and referred to Mod\_01\_11 *UI Payments for Generator Units*, which lacked a strong justification. The Chair summarised the arguments for the proposal stating that as the discrimination incurred is asymmetric in the impact, it is unreasonable to provide a service and not be paid, and that there is not full recovery of the value, but that there is a contribution to the operation costs. The Chair then summarised the arguments against as being that the proposal would introduce an anomaly in the market, and that there is an incentive to continuously over-generate.

The proposer commented that it is an intricate issue to solve as no plant should be paid for over-generating, similarly no plant should be charged for providing a service. Proposer advised that if a plant is to over generate beyond the tolerance band that it incurs a large penalty, thus the incentive to over generate is reduced. The Chair summarised that the general consensus of the Committee is that the issue needs to be resolved. However the option of an Energy limited plant having DOP = €0 is discriminatory, and the proposed option of having the value of the Dispatch Offer Price (DOPuh) to be equal to the System Marginal Price (SMPh) is precarious. Generator Member suggested a possible solution to the issue could be to pay the plant SMP within the tolerance band and zero outside the tolerance band. SEMO were in agreement that this may be a solution and advised that it would be necessary to IA. Proposer was concerned as to the cost of the IA, with SEMO advising that it would investigated, but thought it was likely that the changes should be limited to the Settlement system, and so should be of the same order of cost. The Chair emphasised that the Committee were in agreement that the proposal was to be deferred, however that it should be voted on at Meeting 38. Secretariat advised that following Meeting 38 the FRR would be prioritised. Two actions were placed at the Meeting, one on the proposer to submit an alternative version, the other on SEMO to initiate an IA on paying SMP within the tolerance band.

## Meeting 38 - 10 October 2011

The proposer outlined the alternative version of the proposal. TSO Alternate advised that the TSO were not in favour of this proposal as it is not preferable to remove the incentive for over-generating, however stated that the alternative version is an improvement to the original proposal, as the SMP is being paid within the tolerance band. The proposer advised that the proposal and the various issues surrounding it had been discussed at length at the previous Meeting. TSO Alternate stated that if a Generator Unit exceeds its energy limit, it will get paid for it. Proposer clarified that the energy limit would not be exceeded. The Chair queried as to whether the TSO had any improvements to add to the proposal. TSO Alternate confirmed that the TSO have no improvement to add to the proposal, however strongly feel that these units are being treated differently to other units. SEMO Alternate added that they also disagreed with the proposal in principle. The established market principle is that constraint payments and uninstructed imbalance payments are calculated based on a unit’s offer, which in the case of Energy Limited Units equals zero.

Supplier Alternate questioned as to the results of the IA. SEMO Member advised that the IA remains at the same cost of €38,480 plus testing. The proposer reiterated that the units are generating and are not being paid. The Chair sought clarification from the proposer as to whether the benefit of approving this proposal would accrue to more than the IA cost of €38,480. Proposer confirmed that the proposal’s implementation would significantly outweigh the cost of the IA.

SEMO Alternate noted errors in the legal drafting of the proposal:

* The ‘A’ in paragraph 5.108(A) should not be bracketed.
* TOLOGFuh should read TOLOGLFuh throughout.

# 7 proposed legal drafting

**5.108A** For the purposes of calculation of Uninstructed Imbalances for Energy Limited Generation Units as set out in paragraph 4.141 to 4.151, the Market Operator shall deem the value of the Dispatch Offer Price (DOPuh) to be equal to the System Marginal Price (SMPh) for each Generator Unit u in the Trading Period h for which DQLFuh ≤ AOLFuh ≤ (DQLFuh + TOLOGLFuh)

Where

1. DQLFuh is the Loss-Adjusted Dispatch Quantity for Generator Unit u in Trading Period h;
2. AOLFuh is the Loss-Adjusted Actual Output from Generator u in Trading Period h;
3. TOLOGLFuh is the Loss Adjusted Tolerance for Over Generation for Generator Unit u in Trading Period h.

# 8 LEGAL REVIEW

Complete

# 9 IMPLEMENTATION TIMESCALE, COSTS AND RESOURCES

The proposed implementation date is in line with the next available Central Market Systems scheduled release. It is proposed that this Modification is made on a Settlement Day basis.