

Single Electricity Market

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| Final REcommendation Report  *Mod\_04\_11: Facilitating demand site units with an mec less than 10mw to participate as part of a demand site unit*  18 January 2012 |

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Document History

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| **Version** | **Date** | **Author** | **Comment** |
| 1.0 | 10 January 2012 | Modifications Committee Secretariat | Issued to Modifications Committee for review and approval |
| 2.0 | 18 January 2012 | 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\_04\_11 Removal of requirement that a demand site in a DSU shall not have an MEC](http://semopub/MarketDevelopment/ModificationDocuments/Mod_04_11%20DSU%20and%20MEC.doc) |
| [Mod\_04\_11\_v2 Facilitating demand sites with an MEC less than 10MW to participate as part of a Demand Side Unit](http://semopub/MarketDevelopment/ModificationDocuments/Mod_04_11_v2.docx) |
| [Meeting 33 Slides](http://semopub/MarketDevelopment/ModificationDocuments/Meeting%2033%20Fingleton%20and%20White%20Slides.ppt) |
| [Scenarios - Rationale for DSU with MEC](http://semopub/MarketDevelopment/ModificationDocuments/Rationale%20for%20DSU%20with%20MEC.pdf) |
| [Conference Call note](http://semopub/MarketDevelopment/ModificationDocuments/Conference%20Call%20Note.doc) |
| [DSU Grid Code Consultation](http://www.soni.ltd.uk/upload/DSU%20-%20Consultation%20Paper.PDF) |
| [DSU Grid Code Consultation Appendix](http://www.soni.ltd.uk/upload/DSU%20Consultation%20-%20Grid%20Code%20amendments%20Appendix%20REDLINE.PDF) |

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# 1 MODIFICATIONS COMMITTEE RECOMMENDATION

## Recommended for approval – Unanimous Vote

## (subject to RA Decision approval of the Grid Code Modification)

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| **Recommended for Approval**  **Mod\_04\_11\_V2 (Unanimous Vote)** | | |
| Gill Bradley | Generator Alternate | Approve |
| Iain Wright | Supplier Member | Approve |
| Ian Luney | Generator Member | Approve |
| Jill Murray | Supplier Member | Approve |
| Kevin Hannafin | Generator Member | Approve |
| Killian Morgan | Supplier Member | Approve |
| Mary Doorly | Generator Alternate | Approve |
| William Steele | Supplier Member | Approve |

# 2 Background

This Modification Proposal was originally raised by Fingleton White & Co and was received by the Secretariat on 18 January 2011. It was first presented at Meeting 33 on 01 February 2011 where it was deferred. It was subsequently discussed at Meeting 35 on 05 April 2011, Meeting 36 on 09 June 2011, Meeting 37 on 09 August, Meeting 38 on 11 October, and an alternative version of the proposal was presented and voted on at Meeting 39 on 06 December 2011.

# 3 PURPOSE OF PROPOSED MODIFICATION

## 3A.) Justification for Modification

The insertion in 5.150 prevents a Demand Site with Demand Side Unit MW capacity of greater than 10MW participating as part of an aggregated unit. If the site has a Demand Side Unit MW Capacity of greater than 10MW it must be a single site Demand Side Unit. This reflects recent Grid Code changes.

The insertion in 5.151 limits the change to a site with an MEC of less than 10MW.

The Demand Side Unit MW Capacity definition is the same as the Grid Code definition.

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

Not implementing this Modification Proposal would result in the following:

* Less participation of DSUs in the market place
* Under utilisation of demand reduction capacity on the system
* Under utilisation of available generation capacity

## 3c.) Impact on Code Objectives

This modification will further objectives #2, #4 and #7 of the code objectives as it:

* Facilitates the efficient, economic and coordinated operation, administration and development of the SEM
* Promotes competition in the SEM
* Promotes the long-term interests of consumers of electricity

# 4 assessment of alternatives

One alternative was delivered over the lifespan of the proposal. The original version of the proposal [(Mod\_04\_11)](http://semopub/MarketDevelopment/ModificationDocuments/Mod_04_11%20DSU%20and%20MEC.doc) and the Alternative version of the proposal [(Mod\_04\_11\_V2)](http://semopub/MarketDevelopment/ModificationDocuments/Mod_04_11_v2.docx) are available from the SEMO website.

# 5 working group and/or consultation

A conference call to discuss Mod\_04\_11 *Removal of a requirement that a Demand Site in a DSU shall not have an MEC* was held on 23 March 2011. The purpose of this Conference Call was to discuss scenarios provided by the Modification Proposal proposer in an effort to aid Participant understanding of the proposal. Scenarios are published on the SEMO website under the title “[Rationale for DSU with MEC”.](http://semopub/MarketDevelopment/ModificationDocuments/Rationale%20for%20DSU%20with%20MEC.pdf) A conference call [note](http://semopub/MarketDevelopment/ModificationDocuments/Conference%20Call%20Note.doc) was also published, subsequent to the call.

# 6 Impact on Other Codes/Documents

Mod\_04\_11\_v2 has impacts on the Grid Code. Mod\_04\_11\_v2 was Recommended for Approval subject to RA Decision approval of the Grid Code Modification. The Grid Code Modification Proposal MPID 214 DSU was approved by the CER on 08 December 2011. A decision from NIAUR regarding this Modification Proposal MPID 214 DSU is pending.

# 7 Impact on systems and resources

N/A

# 8 MODIFICATION COMMITTEE VIEWS

## Meeting 33 – 01 February 2011

The Modification Proposal was first presented at Meeting 33 on 01 February 2011. The proposer outlined the original Modification Proposal, advising that the intention of the Modification Proposal was to remove the requirement for a DSU to be comprised of Demand Sites that do not have an MEC. A number of examples were presented to explain the proposal in detail. The Committee raised a number of questions following the presentation regarding profiling, metering, definition of a DSU and whether registering as an AGU would be an option. The proposer advised that registering as an AGU will not deliver a solution as an AGU as it does not capture load reduction potential, gross Settlement results in excessive import costs and if Generation Capacity is greater than MEC, Non-Firm Access will be impacted. At The Meeting, MDPs questioned whether the DSU is the correct terminology for the type of unit in question. A DSU must be available at all times for dispatch whereas the intention of the proposal is to facilitate on site load reduction of unit.

Questions were raised by the Committee regarding the profile and metering of such units. Proposer explained that the reduction would occur relative to the Demand profile of the site as is the case with other DSUs. The difference in this case is that the profile can be negative i.e. when the site is exporting. The TSO stated that there may be impacts on the Grid Code that need to be considered. The Chair questioned how the baseline for the demand profile would be established in order to counteract the incentive for gaming, as all DSU sites are diverse, thus it is difficult to determine what the baseline should be. It was pointed out that this issue exists already for DSUs and it could be argued that it exists for other variables in the SEM. The Committee asked the proposer to send through some additional scenario examples to aid their understanding of the proposed change with a view to being in a position to vote at the next meeting.

The proposal was deferred and two actions were placed on the proposer at the Meeting:

* Proposer to send Secretariat additional scenario examples for circulation to the Modifications Committee.
* Secretariat to schedule Conference Call to discuss scenarios.

Conference Call:

The conference call was held on the 23 March 2011. In advance of the call, additional scenario examples were circulated to the Committee. The purpose of this Conference Call was to discuss these scenarios with the aim of aiding Participant understanding of proposal. The actions from Meeting 33 were closed off, with new actions placed on Participants at the call:

* MDPs to assess from Demand Side and provide update at Meeting 35.
* Fingleton White & Co to propose Modification to the Grid Code.
* TSOs to arrange meeting with relevant parties in advance of Grid Code Modification Proposal.

## Meeting 35 – 05 April 2011

At Meeting 35, ESB MDP and NIE T&D MDP stated that the proposal was not problematic for them, and that EirGrid MDP (and SONI MDPs) would be more affected by the changes, thus closing off the action that had been placed on the MDPs at the conference call. Proposer confirmed that a proposal would be raised with the Grid Code for the next meeting.

Supplier Member queried as to how compliance was going to be measured. SEMO clarified that the means for this is being developed and reiterated that this is not particular only to this Modification Proposal; rather it is a general requirement of the existing provisions. Supplier Alternate questioned whether this issue can be rectified before the Modification is implemented and that it would be useful to have clarity, as, if the value cannot be measured this could cause difficulty for meter data providers in measuring DSU quantity.

Proposer stated that this is a valid concern that was discussed at the Working Group on Mod\_36\_10 *Removal of connection between Supplier Units and DSUs*, and reiterated that it is not specific to this proposal. SO Member stated that DSUs must be controllable by the SO prior to trading in the SEM and that this would have to meet the relevant standards set out in the Grid Code. The Chair commented that due to outstanding actions it may be advisable for the proposal to be deferred. Secretariat advised that the proposal could be Recommended for Approval subject to the Grid Code Panel outcome as has been done with previous Modifications, however the Committee agreed to defer the proposal.

## Meeting 36 – 09 June 2011

At the Meeting, an update on the progress of the Grid Code meetings of both North and South was delivered by Grid Code representatives. SO Member advised that the proposal to the Grid Code was being progressed and that the proposal could work where DSU participation in the Market is small scale, however, if larger participation, further changes would be required to facilitate it. Grid Code Panel Members were largely in favour of the proposal at the GCRP Meeting. At the Meeting an action was placed on a representative from the Grid Code Panel to provide an update at the next Modifications Committee Meeting.

## Meeting 37 – 09 August 2011

At Meeting 37, SO Member advised that there were a number of consequential Modification Proposals required by the Grid Code due to this proposal. SEMO Alternate advised that SEMO would examine whether the Grid Code Modification Proposal impacted on the existing TSC Modification Proposal. SO Alternate advised that the Northern Ireland changes to the Grid Code required a consultation and that Mod\_04\_11 had been deferred pending the outcome of the Grid Code. SEMO Alternate advised that the proposer had been regularly informed on the progress of the Grid Code modification proposal.

## Meeting 38 – 11 october 2011

At Meeting 38, SEMO Alternate advised that a Grid Code Modification Proposal had been raised for the Grid Code Panel Meeting that would be held on 13 October 2011. SEMO Alternate advised of the likelihood that an alternative version of Mod\_04\_11 would be necessary, in order to reflect the changes of the Grid Code Modification Proposal, ensuring consistency between the two proposals. TSO Alternate noted that the Grid Code Panel would meet on 13 October 2011, and if the panel were supportive of the proposal, it would need to be consulted on prior to implementation. The expected completion date of the consultation was estimated as being Q4 of 2011 or Q1 of 2012.

## Meeting 39 – 06 december 2011

Secretariat provided an update on the progress of the related Grid Code Modification Proposal. SO Member confirmed that the NI Consultation process had closed and that a decision from the RAs was pending. Proposer explained that the Grid Code Modification Proposal resulted in the necessity to include some additional changes to the proposal in the form of the alternative version. The Committee agreed to approve the Mod\_04\_11\_v2 *Facilitating demand sites with an MEC less than 10MW to participate as part of a Demand Side Unit* subject to the approval of the Grid Code Modification.

# 9 proposed legal drafting

As set out below in Appendix 1 of this report.

# 10 LEGAL REVIEW

Complete

# 11 IMPLEMENTATION TIMESCALE

The proposed implementation date is one working day after the day on which the Regulatory Authority decision is made. It is proposed that this Modification is made on a Trading Day basis.

# Appendix 1: alternative proposal

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| **MODIFICATION PROPOSAL FORM** | | | | | |
| **Proposer** | **Date of receipt** | | **Type of Proposal**  *(delete as appropriate)* | | **Modification Proposal ID**  *(assigned by Secretariat)* |
| **Fingleton White & Co.** | **22 November 2011** | | **Standard** | | **Mod\_04\_11\_v2** |
| **Contact Details for Modification Proposal Originator** | | | | | |
| **Name** | | **Telephone number** | | **Email address** | |
| **Michael Peters** | | **057 8665400** | | **michael.peters@fingleton.ie** | |
| **Modification Proposal Title** | | | | | |
| **Facilitating demand sites with an MEC less than 10MW to participate as part of a Demand Side Unit** | | | | | |
| **Documents affected** | | **Section(s) Affected** | | **Version number of T&SC or AP used in Drafting** | |
| **T&SC** | | **5.150, 5.151, Glossary** | | **V10.0** | |
| **Explanation of Proposed Change**  *(mandatory by originator)* | | | | | |
| This modification will allow a demand site with an MEC of less than 10MW to participate in the SEM as a Demand Side Unit. This will make the load reduction capacity and excess generation capacity of such large energy users available to System Operator. Demand sites with an MEC <10MW typically have embedded CHP generation where the ratio between the site heat load and site electrical load is such that it is economical to export electricity. These are demand sites where demand can become negative in periods of large site heat requirements.  Participation of these sites as part of an aggregated DSU, as opposed to an AGU is more practical as it facilitates netting generator output against site demand and also results in declaration of available reduction capacity as opposed to total generation capacity. | | | | | |
| **Legal Drafting Change**  *(Clearly show proposed code change using* ***tracked*** *changes, if proposer fails to identify changes, please indicate best estimate of potential changes)* | | | | | |
| * 1. Subject to the terms of the Grid Code, a single Demand Side Unit may be associated with a number of Demand Sites provided that those Demand Sites comprise one single Supplier Unit and that those Demand Sites are within the same Currency Zone and that each Demand Site contributes no greater than 10MW to the Demand Side Unit MW Capacity. The combined Demand Side Unit shall for all purposes under the Code be treated as a single Demand Side Unit.   2. To qualify for registration as a Demand Side Unit, a Demand Site must meet and continue to meet each of the following criteria:   the Demand Site shall house a final customer or consumer;  the Demand Site shall have the technical and operational capability to deliver Demand Reduction in response to Dispatch Instructions from the System Operator in accordance with the relevant Grid Code or Distribution Code;  the Demand Site shall have appropriate equipment to permit real-time monitoring of delivery by the System Operator; and  the Demand Site shall have a Maximum Import Capacity and shall not have a Maximum Export Capacity greater than the De Minimis Threshold.  Glossary:   |  |  | | --- | --- | | Demand Side Unit MW Capacity | The maximum change in Active Power that can be achieved by a Demand Side Unit by totalling the potential increase in on-site Active Power Generation and the potential decrease in on-site Active Power Demand at each Demand Site. | | | | | | |
| **Modification Proposal Justification**  *(Clearly state the reason for the Modification)* | | | | | |
| The insertion in 5.150 prevents a Demand Site with Demand Side Unit MW capacity of greater than 10MW participating as part of an aggregated unit. If the site has a Demand Side Unit MW Capacity of greater than 10MW it must be a single site Demand Side Unit. This reflects recent Grid Code changes.  The insertion in 5.151 limits the change to a site with an MEC of less than 10MW.  The Demand Side Unit MW Capacity definition is the same as the Grid Code definition. | | | | | |
| **Code Objectives Furthered**  *(State the Code Objectives the Proposal furthers, see Section 1.3 of T&SC for Code Objectives)* | | | | | |
| This modification will further objectives #2, #4 and #7 of the code objectives as it:   * Facilitates the efficient, economic and coordinated operation, administration and development of the SEM * Promotes competition in the SEM * Promotes the long-term interests of consumers of electricity | | | | | |
| **Implication of not implementing the Modification Proposal**  *(State the possible outcomes should the Modification Proposal not be implemented)* | | | | | |
| Less participation of DSUs in the market place  Under utilisation of demand reduction capacity on the system  Under utilisation of available generation capacity | | | | | |
| **Working Group**  *(State if Working Group considered necessary to develop proposal)* | | | **Impacts**  *(Indicate the impacts on systems, resources, processes and/or procedures)* | | |
| Not considered necessary. | | | Proposal has impacts on the Grid Code. A Grid Code Modification Proposal is in development. | | |
|  | | | | | |
| ***Please return this form to Secretariat by email to*** [*modifications@sem-o.com*](mailto:modifications@sem-o.com) | | | | | |