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| **MODIFICATION PROPOSAL FORM** |
| **Proposer** | **Date of receipt** | **Type of Proposal** | **Modification Proposal ID** |
| **TSO** | **11 September 2012** | **Standard**  | **Mod\_21\_12\_v2** |
| **Contact Details for Modification Proposal Originator** |
| **Name** | **Telephone number** | **Email address** |
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| **Modification Proposal Title** |
| Amendment to Available Transfer Capacity (ATC) definition |
| **Documents affected** | **Section(s) Affected** | **Version number of T&SC or AP used in Drafting** |
| **T&SC, Appendix K and****AP2** | **5.42 & 5.43**Appendix K 21 | **11.0** |
| **Explanation of Proposed Change***(mandatory by originator)* |
| EirGrid, as TSO, has developed an interconnector transfer capacity determination process for the East West interconnector which has been reviewed by the Regulatory Authorities (CER and Ofgem) and published. The process was prepared in accordance with the requirement on EirGrid, in its role as Transmission System Operator (TSO), under EU Regulation (EC) No 714/2009 *(conditions for access to the network for cross-border exchanges in electricity)* Annex 1 (5.2) to publish a general description of the scheme for the calculation of the interconnection capacity for the different timeframes, based upon the electrical and physical realities of the network. This scheme was subject to review by the Regulatory Authorities. The interconnector transfer capacity determination process will ensure that interconnector import and export capacities that are released to market participants are consistent with system security. The procedures will consider both interconnector equipment and the transmission system to determine the maximum transfers that can be securely permitted with the expected transmission system configuration and availability. At present the Trading and Settlement Code limits any changes in the Maximum Export and Import Available Transfer Capacities to causes associated only with the Interconnector equipment and the GB transmission system.  Until a further Trading and Settlement Code modification is produced to allow curtailment of established transfers this modification proposes to allow the TSO to change the transfer capacity prior to the EA1 gate before market transfers are established, for Transmission System reasons. The TSO will develop a temporary process to enact curtailment of flows without affecting the SEM settlement position of Interconnector users.  |
| **Legal Drafting Change***(Clearly show proposed code change using* ***tracked*** *changes, if proposer fails to identify changes, please indicate best estimate of potential changes)* |
| As a result of this conflict and higher priority applied to EU regulations, the System Operators propose to amend the Trading and Settlement Code paragraphs 5.42, 5.43 and Appendix K 21 as follows:5.42 Maximum Import Available Transfer Capacity shall relate to the physical capability of the Interconnector to deliver energy to the Transmission System, and, in each Trading Period:1. shall take account of any further restrictions placed by any relevant agreement or the provisions of any Licence in respect of the Interconnector;
2. shall be determined in accordance with the applicable interconnector transfer capacity determination process; and
3. its absolute magnitude shall not be reduced , for Transmission System reasons for any Trading Period after the EA1 Gate Window closure for the relevant Trading Day,
4. shall not otherwise take account of any expected transmission constraints or other aspects of the operation of the Transmission System .

5.43 Maximum Export Available Transfer Capacity shall relate to the physical capability of the Interconnector to off-take energy from the Transmission System, and, in each Trading Period:1. shall take account of any further restrictions placed by any relevant agreement or the provisions of any Licence in respect of the Interconnector;
2. shall be determined in accordance with the applicable interconnector transfer capacity determination process; and
3. its absolute magnitude shall not be reduced , for Transmission System reasons for any Trading Period after the EA1 Gate Window closure for the relevant Trading Day,
4. shall not otherwise take account of any expected transmission constraints or other aspects of the operation of the Transmission System.

Table K.30 – Interconnector Available Transfer Capacity Data Transaction Submission Protocol

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| Sender | Interconnector Administrator |
| Recipient | Market Operator |
| Number of Data Transactions | One containing:1. In all cases, for the relevant Interconnector, Maximum Import Available Transfer Capacity and Maximum Export Available Transfer Capacity for each Trading Period in the relevant Optimisation Time Horizon.
2. Only in the event that the relevant Interconnector Available Transfer Capacity has unexpectedly changed, values and associated time for each change in Maximum Import Available Transfer Capacity or Maximum Export Available Transfer Capacity within the relevant Trading Day.
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| Frequency of Data Transactions  | Daily and as updated |
| First Submission time | As available |
| Last Submission time  | Unlimited, at least one Data Transaction shall be submitted by 10:00 on the day prior to the EA1 Gate Window Closure |

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| **Modification Proposal Justification***(Clearly state the reason for the Modification)* |
| Introduction One of the prime obligations of Transmission System Operators (TSOs) is to operate the power system within its jurisdiction in a secure manner. This includes managing the effects that inter-jurisdictional interconnector flows have on the power system. Full transfer capacity between jurisdictions may be limited at times, depending on interconnector equipment and the connecting transmission systems. The facility for TSOs to determine and set transfer limits on inter-jurisdictional flow to respect security standards is required to ensure the secure operation of the transmission system. For unplanned events, the ability to determine and apply new transfer limits resulting in the curtailment of interconnector transfers is an essential tool to enable system security to be maintained during periods when power system conditions result in situations which breach minimum system security standards. EirGrid, as TSO, has developed an interconnector transfer capacity determination process[[1]](#footnote-1) for the East West interconnector which has been reviewed by the Regulatory Authorities and published. An Interconnector capacity calculation document exists for the Moyle Interconnector[[2]](#footnote-2) which documents the determination of transfer limits and will be developed to include a curtailment process to align with the East West process. Changes are required to the SEM Trading and Settlement Code to align with these documents required under EU regulations in this area.Interconnector transfer capacity determination process Performing cross border transfer capacity calculations is a fundamental part of the operation of an interconnected power system as indicated in Regulation (EC) No. 714/2009. Regulation (EC) No. 714/2009 as stated in article 1:*(16) The precondition for effective competition in the internal market in electricity is non- discriminatory and transparent charges for network use including interconnector lines in the transmission system. The available capacity of those lines should be set at the maximum levels consistent with the safety standards of secure network operation.* Cross border transfer capacity calculations need to be carried out on a regular basis to support the capacity allocation auction processes and to ensure the secure operation of the power system. Calculations are required to be carried out at a number of different time frames from year ahead up to and including real time. The result of these calculations will be maximum export and import limits which, when taken together with any limits imposed by National Grid (resulting from GB power system limitations), will establish the transfer capacity allowable on Interconnectors in both directions. In accordance with the requirements of Regulation (EC) No. 714/2009 the TSO has produced a document describing the process for the determination of transfer capacity. The document has been reviewed by the Regulatory Authorities and published. The terminology used by ENTSOE for transfer capacity referencing will be used by the TSOs to align with a standard European approach which requires the use of the term “Net Transfer Capacity” rather than the currently used “Available Transfer Capacity” when relating to the transfer capacity released to market participants. The resolution of this contradiction between ENTSOE conventions and the SEM T&SC definitions needs to be agreed and addressed.An unexpected, unplanned change in the transmission system may require in a reduction in transfer flow to maintain system security, a flow curtailment. A curtailment would only be carried out as the ‘last resort’. Before reducing energy flow on the Interconnector the TSO will: 1. Utilise remedial actions including the re-dispatch of generation or demand side plant to relieve the security constraint, if possible
2. Counter-trade to reduce Interconnector flows, if available
3. Utilise SO/SO Emergency Assistance

In the event that these actions are ineffective the TSO will reduce the energy flow and re-declare the transfer capacity. This process is consistent with the requirements of EU Regulation (EC) No 714/2009 Article 16 (2). In the event of interconnector curtailment being required, the TSOs are proposing to produce and publish suitable reports that would provide details of each event and the actions taken. The ability for System Operators to curtail interconnector flows is enshrined in regulation (EC) No. 714/2009 as stated in article 16:*General principles of congestion[[3]](#footnote-3) management**2. Transaction curtailment procedures shall only be used in emergency situations where the transmission system operator must act in an expeditious manner and re-dispatching or countertrading is not possible. Any such procedure shall be applied in a non-discriminatory manner. Except in cases of force majeure, market participants who have been allocated capacity shall be compensated for any curtailment.**3. The maximum capacity of the interconnections and/or the transmission networks affecting cross-border flows shall be made available to market participants, complying with safety standards of secure network operation*In seeking to clarify the term “secure network operation” it is useful to look at the definition of ‘Security’, as contained in Directive 2009/72/EC Article 2:*28. ‘security’ means both security of supply and provision of electricity, and technical safety;*As a result, any action taken to curtail interconnector flows must be seen as a “last resort” (i.e. where re-dispatching and counter-trading are not effective or cannot occur to restore the power system to a state where minimum security standards are maintained).Changes required to the Trading and Settlement Code The current provisions in the Trading and Settlement Code specifically prevent power system constraints which may reduce or remove the ability to transfer energy from being considered when calculating the interconnector transfer capacity: *“5.42 Maximum Import Available Transfer Capacity shall relate to the physical capability of the Interconnector to deliver energy to the Transmission System, and shall take account of any further restrictions placed by any relevant agreement or the provisions of any Licence in respect of the Interconnector, but shall not otherwise take account of any expected transmission constraints or other aspects of the operation of the Transmission System.”* *“5.43 Maximum Export Available Transfer Capacity shall relate to the physical capability of the Interconnector to off-take energy from the Transmission System, and shall take account of any further restrictions placed by any relevant agreement or the provisions of any Licence in respect of the Interconnector, but shall not otherwise take account of any expected transmission constraints or other aspects of the operation of the Transmission System.”**“Appendix K Table K.30 Number of Data Transactions* *2. Only in the event that the relevant Interconnector has desynchronised unexpectedly, values and associated time for each change in Maximum Import Available Transfer Capacity or Maximum Export Available Transfer Capacity within the relevant Trading Day”*The provisions of the Trading and Settlement Code conflict with those of Regulation (EC) No. 714/2009, which requires that:*Annex 1 GUIDELINES ON THE MANAGEMENT AND ALLOCATION OF AVAILABLE TRANSFER CAPACITY OF INTERCONNECTORS BETWEEN NATIONAL SYSTEMS* 1. *General Provisions*
	1. *Where scheduled commercial transactions are not compatible with secure network operation , the TSOs shall alleviate congestion in compliance with the requirements of network operational security while endeavouring to ensure that any associated costs remain at an economically efficient level. Curative re-dispatch or counter trading shall be envisaged in case lower cost measures cannot be applied.*
	2. *If structural congestion appears, appropriate congestion- management methods and arrangements defined and agreed in advance shall be implemented immediately by the TSOs. The congestion-management methods shall ensure that any physical power flows associated with all allocated transmission capacity comply with network security standards.*

Paragraph 2.4 of the Trading and Settlement Code states : -

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| *“In the event of any conflict between any Party’s obligation pursuant to any Legal requirements and the Code, such conflict shall be resolved according to the following order of priority;*1. *requirements under Applicable Laws*
2. *any applicable requirement, direction, determination, decision, instruction or rule of any competent Authority;*
3. *applicable license;*
4. *Grid Code applicable to the relevant unit concerned;*
5. *Metering Code applicable to the relevant unit concerned;*
6. *this Code (subject to paragraph 2.8 below) “*
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As a result of this conflict and higher priority applied to EU regulations, the System Operators propose to raise a Modification to the Trading and Settlement Code which will amend paragraphs 5.42 and 5.43 and Appendix K 21 . Commercial IssuesRegulation (EC) No 714/2009 Annex 1 part 2.13 states that the financial consequences of curtailing capacity falls to those who are responsible for such a failure. *2.13 The financial consequences of failure to honour obligations associated with the allocation of capacity shall be attributed to those who are responsible for such a failure. Where market participants fail to use the capacity that they have committed to use, or, in the case of explicitly auctioned capacity, fail to trade on a secondary basis or give the capacity back in due time, they shall lose the rights to such capacity and pay a cost-reflective charge. Any cost-reflective charges for the non-use of capacity shall be justified and proportionate. Likewise, if a TSO does not fulfil its obligation, it shall be liable to compensate the market participant for the loss of capacity rights. No consequential losses shall be taken into account for that purpose. The key concepts and methods for the determination of liabilities that accrue upon failure to honour obligations shall be set out in advance in respect of the financial consequences, and shall be subject to review by the relevant national regulatory authority or authorities.*Market Participants will be compensated for loss of capacity rights in the event of a transmission restriction being imposed on interconnector capacity in line with the compensation mechanism set out in the interconnector Access Rules. |
| **Code Objectives Furthered***(State the Code Objectives the Proposal furthers, see Section 1.3 of T&SC for Code Objectives)* |
| The implementation of this Modification will fulfil the following code objectives;1. to facilitate the efficient, economic and coordinated operation, administration and development of the Single Electricity Market in a financially secure manner;
2. to provide transparency in the operation of the Single Electricity Market;
3. to promote the short-term and long-term interests of consumers of electricity on the island of Ireland with respect to price, quality, reliability, and security of supply of electricity.

The TSO’s interconnector transfer capacity determination process has been both reviewed by the Regulatory Authorities and published to ensure transparency. Additionally, in the event of interconnector flow curtailment being required, the TSO is proposing to produce and publish suitable reports that would provide details of each event and the actions taken.Interconnector flow curtailment will only occur in exceptional circumstances (i.e. as a last resort) and would be applied in a non discriminatory manner. Such events include:* Interconnector faults (i.e. where the interconnector equipment cannot physically deliver or receive interconnector transfers).
* Loss of transmission or generation capacity in the SEM, such that the local transmission system cannot achieve the planned interconnector transfers and remain within operational security standards.
* Restrictions in transfer applied by National Grid due to GB limitations
* Capacity shortfalls, where generation is insufficient to meet demand and interconnector export transfers.
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| **Implication of not implementing the Modification Proposal***(State the possible outcomes should the Modification Proposal not be implemented)* |
| Not implementing the modification reduces system security and would place the TSO in breach of the Trading and Settlement Code when applying EU regulation to maintain system security.  |
| **Working Group***(State if Working Group considered necessary to develop proposal)* | **Impacts***(Indicate the impacts on systems, resources, processes and/or procedures)* |
|  | There are no SEM IT system impacts. The new interconnector transfer capacity determination process affects TSO resources. |
| ***Please return this form to Secretariat by email to*** ***modifications@sem-o.com*** |

**Notes on completing Modification Proposal Form:**

1. **If a person submits a Modification Proposal on behalf of another person, that person who proposes the material of the change should be identified on the Modification Proposal Form as the Modification Proposal Originator.**
2. **Any person raising a Modification Proposal shall ensure that their proposal is clear and substantiated with the appropriate detail including the way in which it furthers the Code Objectives to enable it to be fully considered by the Modifications Committee.**
3. **Each Modification Proposal will include a draft text of the proposed Modification to the Code unless, if raising a Provisional Modification Proposal whereby legal drafting text is not imperative.**
4. **For the purposes of this Modification Proposal Form, the following terms shall have the following meanings:**

**Agreed Procedure(s): means the detailed procedures to be followed by Parties in performing their obligations and functions under the Code as listed in Appendix D “List of Agreed Procedures”.**

**T&SC / Code: means the Trading and Settlement Code for the Single Electricity Market**

**Modification Proposal: means the proposal to modify the Code as set out in the attached form**

**Derivative Work: means any text or work which incorporates or contains all or part of the Modification Proposal or any adaptation, abridgement, expansion or other modification of the Modification Proposal**

**The terms “Market Operator”, “Modifications Committee” and “Regulatory Authorities” shall have the meanings assigned to those terms in the Code.**

**In consideration for the right to submit, and have the Modification Proposal assessed in accordance with the terms of Section 2 of the Code (and Agreed Procedure 12), which I have read and understand, I agree as follows:**

**1. I hereby grant a worldwide, perpetual, royalty-free, non-exclusive licence:**

* 1. **to the Market Operator and the Regulatory Authorities to publish and/or distribute the Modification Proposal for free and unrestricted access;**
	2. **to the Regulatory Authorities, the Modifications Committee and each member of the Modifications Committee to amend, adapt, combine, abridge, expand or otherwise modify the Modification Proposal at their sole discretion for the purpose of developing the Modification Proposal in accordance with the Code;**
	3. **to the Market Operator and the Regulatory Authorities to incorporate the Modification Proposal into the Code;**

**1.4 to all Parties to the Code and the Regulatory Authorities to use, reproduce and distribute the Modification Proposal, whether as part of the Code or otherwise, for any purpose arising out of or in connection with the Code.**

**2. The licences set out in clause 1 shall equally apply to any Derivative Works.**

**3. I hereby waive in favour of the Parties to the Code and the Regulatory Authorities any and all moral rights I may have arising out of or in connection with the Modification Proposal or any Derivative Works.**

**4. I hereby warrant that, except where expressly indicated otherwise, I am the owner of the copyright and any other intellectual property and proprietary rights in the Modification Proposal and, where not the owner, I have the requisite permissions to grant the rights set out in this form.**

**5. I hereby acknowledge that the Modification Proposal may be rejected by the Modifications Committee and/or the Regulatory Authorities and that there is no guarantee that my Modification Proposal will be incorporated into the Code.**

1. <http://www.eirgrid.com/media/Principles%20for%20determining%20Transfer%20Capacity%20on%20the%20East%20West%20Interconnector%2031%20July%202012.pdf> [↑](#footnote-ref-1)
2. <http://www.uregni.gov.uk/uploads/publications/110930_MIL_SONI_NG_Capacity_Calc_combined_Sept_2011.pdf> [↑](#footnote-ref-2)
3. Congestion is defined in Article 2 as:*(c) ‘congestion' means a situation in which an interconnection linking national transmission networks, cannot accommodate all physical flows resulting from international trade requested by market participants, because of a lack of capacity of the interconnectors and/or the national transmission systems concerned*  [↑](#footnote-ref-3)