## image001

## Working Group 1 Report

## Mod\_12\_11

Interconnector Unit Loss Adjustment when Exporting

19 April 2011

1.30 – 4.00

Hotel Isaacs, Dublin

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Attendees

|  |  |
| --- | --- |
| Name | Organisation |
| Alan Kennedy | SONI |
| Aisling O’Donnell | SEMO |
| Aodhagan Downey - **Chair** | SEMO |
| Brian Mongan | AES Kilroot |
| Dana Kelleher | CER |
| Dermot Lynch | Bord Gáis |
| Grainne O'Shea | ESB Power Generation |
| Iain Wright | Airtricity |
| Jamie Burke | CER |
| Jonathan Jennings | SEMO |
| Kevin Hannafin | Viridian |
| Kris Kennedy | SONI |
| Marian Troy | Endesa Ireland |
| Michael Preston | SONI |
| Niamh Delaney | SEMO |
| Nicola Calvert | SONI |
| Philip Newsome | CER |
| Rodney Doyle | EirGrid |
| Shane O’Rourke | Endesa Ireland |
| Sinead O’Hare | NIE PPB |
| Sherine King | SEMO |

Introduction and Synopsis

Mod\_12\_11 *Interconnector Unit Loss Adjustment when Exporting* was presented to the Modifications Committee by the TSO on 05 April 2011 at Meeting 35. The proposal proposes changes to the T&SC to correct an anomaly with the application of losses for Interconnector (IC) Units when exporting. The main driver of the proposal was identified as the increase in exporting capacity on Moyle and the introduction of EWIC next year. Two options were put forward by the TSO at the Meeting; Option 1 *One CLAF* and Option 2 *Two CLAFs*.

Presentations

Two presentations were given – one by Iain Wright of Airtricity on the wider regional context and the other by Nicola Calvert of SONI on the specific options proposed. These presentation slides are available under Mod\_12\_11 via the zip folder (Working Group 1 Report) on the SEMO Website.

Discussion and Summary of Key Issues

The Chair sought agreement on the terms of reference. Attention was drawn to comments put forward by Bord Gáis in relation to broadening the scope and assessing the methodology of the calculations used. The group were in agreement with the Chair that the comments be included in the wider context of the discussions (see Appendix 1 of this report for Terms of Reference).

Airtricity in their presentation advised that, EU 838/2010 is effective for all Member States from 3rd March 2011. As such the Inter-Transmission System Operator Compensation (ITC) mechanism stipulates that compensation will be paid for:

the costs of losses incurred national transmission systems as a result of hosting cross-border flows of electricity; and,

the costs of making infrastructure available to host cross-border flows of electricity.

Presenter stressed the need to look at the Modification Proposal in the context of EU regulation and that “*…losses arising from cross-border trade ought to be compensated through the ITC mechanism…”.*

EirGrid representative advised that both EirGrid and SONI TSO are responsible for calculating the losses on the IC. Acknowledged that the question raised by Airtricity was valid but clarified that the losses on Moyle this year were not included in the ITC. EirGrid representative suggested that the issue of treatment of losses by the ITC should be addressed by the France UK Ireland (FUI) Group. EirGrid confirmed that the next FUI meeting will take place on May 9th.

A question was raised as to whether DC ICs are excluded from paragraph 6 of 838/2010. EirGrid agreed that it would seek clarification to questions raised at the meeting with the aim of being able to give the group clarification after the meeting. Airtricity further added that a cost will arise and the question is which Member State bears the cost.

**Action:** EirGrid and RAs to provide update for Meeting 36 on outcome of discussions at next FUI meeting on the future policy for IC losses and ITC and status of DC ICs in relation to directive 838/2010.

Chair called for all possible options to be put forward by the group in advance of in-depth discussion on a solution. The group came up with 6 possible options as follows:

|  |  |
| --- | --- |
| Option 1: | One CLAF and reciprocal applied to IC Units’ flow for imports and exports respectively. |
| Option 2: | Two CLAFs applied to IC Units’ flow for imports and exports. |
| Option 3: | One CLAF and reciprocal applied to net IC flow for imports and exports respectively. |
| Option 4: | Two CLAFs applied to net IC flow for imports and exports. |
| Option 5: | Set CLAF=1 and recover actual losses through ITC. |
| Option 6: | Do nothing |

Discussion ensued around the application of CLAFs to net flows. SONI representative advised that a loss adjustment factor would apply regardless of superpositioning as rebidding could change the initial trade position.

A Generator questioned the difference in treatment of CLAFs for Generators to that of IC units. Clarification was given that due to the nature an IC to have two way flows, it can have two CLAF values. It was noted by NIE PPB that multiple CLAFs in one direction is discriminatory.

The issue of timing for systems changes associated with some options was also brought to the attention of the group. Chair advised that it may not be possible to implement some of the options until as early as October 2012. A suggestion was put forward that it might be of benefit to see some analysis of the second option. SEMO representative advised that Option 1 was considered relatively simple to implement.

It was highlighted that there are two components of losses associated with ICs: the IC losses and ‘onshore’ losses i.e. the impact on system losses of flows on the IC. The losses on DC ICs are the same in either direction so using one CLAF and its reciprocal for imports and exports respectively would be an accurate representation of these losses. However, it was not clear whether this would be true for onshore losses. The group were in favour of the SOs carrying out some analysis.

**Action**: SOs to assess the level of work necessary to conduct a study on the accuracy of using one CLAF and its reciprocal to represent losses on imports and exports respectively and provide update at Meeting 36.

RA representative asked what are the approximate cable losses on Moyle and EWIC. SEMO advised that the losses on Moyle are approximately 2% while losses on EWIC are expected to be in the region of 5%.

Another point that was raised is that the use of two CLAFs would only produce a different result that using one CLAF if compressed CLAFs continue to be used and onshore losses continue to be handled outside the ITC. If onshore losses were being handled in ITC or if uniform losses are implemented then the use of one CLAF will produce the same result as two CLAFs.

RA representative advised that a consultation on the policy for loss factors will be issued towards the end of May. The terms of reference for the consultation was published in the past few weeks. Further, added that consideration of IC losses will be addressed separately. RAs agreed to provide an update to the Committee at Meeting 36.

**Action*:*** RAs to provide an update on the consultation on TLAFs at Meeting 36 of the Modifications Committee.

The deadline for consideration for the July 2012 Systems Release was reminded by the Chair. There was widespread acknowledgement that, in order for the change to be considered for inclusion in the July 2012 release, the Modifications Committee will have to vote on the proposal at Meeting 36 on June 9th 2011.

The group were in agreement that Option 1 should be progressed to impact assessment by SEMO.

**Action:**SEMO to procure Impact Assessment of Option 1 and present results to the Modifications Committee at Meeting 36.

In summarising the discussion the Chair identified three uncertainties unresolved by the group:

ITC requirements;

TLAF Consultation; and,

Point of connection.

There would be potential issues with the choice of Option 1 if:

Compressed TLAF chosen over Uniform TLAF;

Onshore element not handled as part of ITC; and,

Loss effects for imports/export flows give different effects.

The decision around the application of losses, net flow option or individual component of flow was finalised. The group agreed that losses should apply to each individual trade with consideration of the effect of losses to be addressed at Meeting 36.

Recommendations and Action Items

Option 1 was identified by the group as the preferred option combined with loss adjustment of individual IC Units quantities.

The following actions were agreed at the meeting:

* SOs and RAs to provide update for Meeting 36 on outcome of discussions at next FUI meeting on the future policy for IC losses and ITC and status of DC ICs in relation to directive 838/2010.
* SOs to assess the level of work necessary to conduct a study on the accuracy of using one CLAF and its reciprocal to represent losses on imports and exports respectively and provide update at Meeting 36.
* RAs to provide an update on the consultation on TLAFs at Meeting 36 of the Modifications Committee; and,
* SEMO to procure Impact Assessment of Option 1 and present results to the Modifications Committee at Meeting 36.

Appendix 1 – Terms of Reference

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Draft Working Group Terms of Reference

Background

The Modifications Committee requested at Meeting 35 on 05 April 2011 that a Working Group be set up to discuss associated issues raised by Mod\_12\_11 *Interconnector Unit Loss Adjustment when Exporting*.

The TSO in a presentation to the Committee at the Meeting drew attention to an anomaly with the application of losses for Interconnector Units when exporting. The main drivers for this Modification are due to the Moyle Interconnector export capacity increasing and the introduction of EWIC next year. Two options were presented at the Meeting:

Option 1: One TLAF

One TLAF (=CLAF) determined by TSOs for Interconnectors which is reciprocated depending on whether the Interconnectors are importing or exporting. E.g. ‘X’ MW \* CLAF for units importing and ‘X’ MW/CLAF for units exporting.

Option 2: Two TLAFs

One import and one export TLAF (=CLAF) value determined by TSOs. As there are two options suggested for Interconnector Loss Adjustments, it was felt that these should be considered by the Committee. It was agreed that Participants provide feedback on the argument for and against each option to the Secretariat in advance of the Working Group Meeting.

Objectives

The objectives of the Working Group are to:

Provide an overview of the current rules for treatment of losses between SEM and BETTA on Moyle;

Gain an understanding of the implications of maintaining the existing rules;

Collate feedback of Participants in relation to their preferred option;

Consider any possible alternative options;

Make any necessary amendments to the proposal in the form of an alternative/(s) versions in advance of Meeting 36 if required; and,

Recommend to the Modifications Committee a preferred option to pursue.

The above objectives are to be completed by Meeting 36 of the Modifications Committee on 09 June 2011.

Scope

The Working Group will:

Review the options available for treatment of losses on the Interconnector between SEM and BETTA;

Assess the impacts of each option with consideration for the impact on trade on the Interconnectors;

Identify any additional changes to the T&SC and/or APs or other documents that may be necessary to develop the proposal;

Determine timetable for the completion of impact assessments and proposal updates; and

Make a recommendation to the Modifications Committee.

Deliverables

A report containing the recommendations of the Working Group is to be submitted to the Modifications Committee.

Submission of a revised version(s) of the proposal if considered necessary by Modifications Meeting 36 submission deadline of 26 May 2011.

Presentation of complete full Impact Assessments on preferred option at Meeting 36 of the Modifications Committee on 09 June 2011.

Stakeholders

Market Participants (Generators and Suppliers), Regulatory Authorities, System Operators, Meter Data Providers, Market Operator, Moyle Interconnector Owner, EWIC Owner, Interested Parties.

Roles and Responsibilities

Chair to direct the Working Group – To be confirmed.

Stakeholders to feed into the group - participation, analysis of options, opinion and recommendations.

Resources

Independent Chair

SEMO Secretariat

Analyst from each of the following:

SEMO, EirGrid TSO, SONI TSO, Generators and Interested Parties from Industry

Resources will be expected to attend, present feedback and participate in the meeting and carry out required preparation and follow up on action items assigned.

Work Breakdown Structure

TSO to present an overview of the options proposed at Meeting 35;

Participants to present feedback following consideration of options; and,

TSO and/or SEMO to inform the Working Group of time constraints that the progression of the proposal is dependent on.

Schedule

A half day Working Group meeting is proposed for the afternoon of 19 April 2011 to discuss the options.

Next key milestone Modifications Committee Meeting 36 on 09 June 2011.

Risks and Restraints

There is a risk that the Working Group may not reach an agreed recommendation on a preferred option for Meeting 36.

There is a risk that the discussion strays to wider market issues which may not be associated with the terms of reference of the Working Group.

**Bord Gais comments**

Good afternoon Sherine, Aisling,

Just coming back to you on one or two points for this Mod Proposal and Terms of Reference. Whereas I can understand the Mod and why it’s needed for the commissioning of EWIC, there are two larger discussions that I think it should sit within. Firstly, there has been no analysis on how TLAFs for import or export should be calculated/estimated and therefore if TLAFs for imports and exports should be different then I think Option 1 would be irrelevant. With that in mind, I would suggest that the TSOs do some analysis to prove that a TLAF for import and export are the same and this mod may more appropriately fit in to the RAs overall review of TLAFs, their calculation and their application in the MS and DS. Secondly, there are some other regulatory/policy aspects of interconnectors that should be discussed at a high level, such as the treatment of TUoS charges etc, and I feel that it would be better if all of these issues were addressed in tandem as opposed to progressing them on an individual, ad hoc basis.

With that in mind – I think it might be beneficial to expand the focus of the working group (but it may be too early to do that at this stage) to look at the provisions for ICs in the T&SC as a whole rather than focusing solely on one small aspect of the T&SC.

Please feel free to give me a call if you would like to discuss.

Appendix 2 – Presentation Slides

Presentation slides are available via the zip folder (Working Group 1 Report) on the SEMO Website.

Appendix 3 – Working Group Agenda

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Working Group

Mod\_12\_11

Interconnector Unit Loss Adjustment When Exporting

Agenda

Tuesday 19 April 2011

Hotel Isaacs, Dublin

## 13:30 – 16:30

|  |  |  |  |
| --- | --- | --- | --- |
|  | Agenda Item | Proposer | Time |
|  | Tea / Coffee / Sandwiches |  | 1.00 – 1.30pm |
|  | Introduction | Secretariat | 10 mins |
|  | TSO Presentation | Nicola Calvert | 20 mins |
|  | Discussion | All | 1 hour 45 mins |
|  | Recap, Agreed Recommendations, Actions and Post Working Group Timetable | Chair & Secretariat | 15 mins |
|  | AOB / Approximate close time |  | 4pm |

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| --- | --- |
| Modification Working Group | means a group comprised of Modification Committee Members and Interested Parties formed for the purposes of working out the detail and implementation plans for Modification Proposal(s). |
|  |  |

Appendix 4 – Modification Proposal

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| --- | --- | --- | --- | --- | --- | --- |
| MODIFICATION PROPOSAL FORM | | | | | | |
| Proposal Submitted by: | Date Proposal received by Secretariat: | | Type of Proposal | | | Number: |
| TSO | 22 March 2011 | | Standard | | | Mod\_12\_11 |
| Contact Details for Modification Proposal Originator | | | | | | |
| Name:  Nicola Calvert | | Telephone number:  +44 (0) 28 90707 515 | | e-mail address:  Nicola.calvert@soni.ltd.uk | | |
| Modification Proposal Title:  Interconnector Unit Loss Adjustment When Exporting | | | | | | |
| Trading and Settlement Code and/or Agreed Procedure change? | | | | | TSC | |
| Section(s) affected by Modification Proposal: | | | | | 4.46  (new) 4.46A | |
| Version Number of the Code/Agreed Procedure used in Modification drafting: | | | | | 8.0 | |
| Modification Proposal Description  (Clearly show proposed code change using **tracked changes** & include any necessary explanatory information) | | | | | | |
| 4.46 Except for Loss-Adjusted Capacity Payments Eligible Availability (CPEALFuh) which are calculated in accordance with paragraph 4.111, then any variable which relates to a Generator Unit u that is not an Interconnector Unit in a Trading Period h, where XXXuh is the variable before application of Transmission Losses and Distribution Losses, and XXXLFuh is the variable after application of Transmission Losses and Distribution Losses, shall be calculated as follows:  XXXLFuh = XXXuh x CLAFuh  Where  1. CLAFuh is the Combined Loss Adjustment Factor for Generator Unit u in Trading Period h.  4.46A Except for Loss-Adjusted Capacity Payments Eligible Availability (CPEALFuh) which are calculated in accordance with paragraph 4.111, then any variable which relates to a Generator Unit u that is an Interconnector Unit in a Trading Period h, where XXXuh is the variable before application of Transmission Losses and Distribution Losses, and XXXLFuh is the variable after application of Transmission Losses and Distribution Losses, shall be calculated as follows:  If XXXuh ≥0 then  XXXLFuh = XXXuh x CLAFuh  else  XXXLFuh =  Where  1. CLAFuh is the Combined Loss Adjustment Factor for Generator Unit u in Trading Period h. | | | | | | |
| Modification Proposal Justification  (Clearly state the reason for the Modification & how it furthers the Code Objectives) | | | | | | |
| Currently, the Moyle Interconnector connects Scotland with Northern Ireland. In 2012, the EW Interconnector will connect Ireland with Wales. Each of these DC Interconnectors will incur losses associated with the transmission of electricity.  Current Transmission Loss Adjustment factors (TLAF) for Interconnectors are based on the point of connection in SEM jurisdictions, plus an allowance for losses on the Interconnectors to the Connection Point (noting that DLAF for Interconnectors is equal to one). Within the current Code, adjustment for losses reflects the transfer of electricity between the Connection Point of a Unit and the Trading Boundary, where:  Connection Point: The point at which the Generator Unit or Supplier Unit is deemed to be connected within the SEM.  Trading Boundary: A notional balancing point for generation and supply and is the point of sale for trading in the SEM.  For Moyle, the Connection Point (as per the definition of Connected) is Auchencrosh in Scotland (i.e. the remote end of the Interconnector). The TLAF for the Moyle Interconnector is currently approximately 0.98, which includes both the losses on the Moyle link and the losses to Ballycronanmore.  This TLAF is based on the expected predominant direction of flow for the Interconnector (i.e. importing).  Importing Case  When importing, energy is bought in BETTA, provided at the Connection Point and is sold in SEM at the Trading Boundary.  As a result of losses, “X” MW bought in BETTA becomes (X\*0.98) MW which is paid for by the SEM.  As the TLAF (=CLAF) is calculated based on importing, this treatment is correct.  Exporting Case  When exporting, energy is bought at the the Trading Boundary in SEM and is delivered to the Connection Point in BETTA.  As a result of losses, “X / 0.98” MW must be bought at the SEM Trading Boundary in order to deliver “X” MW to BETTA.  However, this is not as per the Code, which assumes that X\*0.98 MW is purchased at the SEM Trading Boundary and “X” MW is delivered to BETTA.  This treatment when exporting is incorrect, as it does not reflect the fact that (assuming that the losses related to the Moyle are around 2%), Interconnector Users seeking to export electricity would need to purchase more at the Trading Boundary than would be delivered to BETTA.  This Modification proposes to adjust quantities for Interconnector Units (where required in accordance with the Code) when exporting by the reciprocal of the CLAF provided by the System Operator to the Market Operator.  If the relevant quantity (e.g. MSQ, DQ, MG) is greater than or equal to zero (i.e. importing), there is no change to the existing calculation.  If the relevant quantity (e.g. MSQ, DQ, MG) is less than zero (i.e. exporting), the loss adjustment is by (1/CLAF).  This Modification Proposal furthers Code Objectives 2 and 6, in addressing the treatment of Interconnector Units when exporting in a consistent manner to that of other Generator Units delivering electricity to their defined Connection Point.  2. to facilitate the efficient, economic and coordinated operation, administration and development of the Single Electricity Market in a financially secure manner;  6. to ensure no undue discrimination between persons who are parties to the Code; | | | | | | |
| Implication of not implementing the Modification  (Clearly state the possible outcomes should the Modification not be made , or how the Code Objectives would not be met) | | | | | | |
| Currently, the implications of this loss-adjustment error are not significant (due to exporting volumes). However, the inclusion of the EW Interconnector and the potential future increase in the Moyle export capacity would result in this effect being potentially significant. | | | | | | |
| Please return this form to Secretariat by e-mail to [***modifications@sem-o.com***](mailto:modifications@sem-o.com) | | | | | | |

Notes on completing Modification Proposal Form:

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.

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.

Each Modification Proposal will include a draft text of the proposed Modification to the Code.

For the purposes of this Modification Proposal Form, the following terms shall have the following meanings:

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:

to the Market Operator and the Regulatory Authorities to publish and/or distribute the Modification Proposal for free and unrestricted access;

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;

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.