

Single Electricity Market

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| Final REcommendation Report  Mod\_12\_14: amendment to make whole mechanism to remove settlement periods of simultaneous import and export flows  08 May 2015 |

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Document History

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| 1.0 | 01 May2015 | Modifications Committee Secretariat | Issued to Modifications Committee for review and approval |
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Reference Documents

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| --- |
| **Document Name** |
| [Trading and Settlement Code](http://semopub/MarketDevelopment/MarketRules/TSC.docx) |
| [Meeting 58 Electroroute Slides](http://semopub/MarketDevelopment/ModificationDocuments/140905%20ElectroRoute%20Discussion%20Slides%20v1-0.pdf) |
| [Mod\_12\_14 Amendment to Make Whole Mechanism to Remove Settlement Periods of Simultaneous Import and Export Flows](http://semopub/MarketDevelopment/Modifications/Pages/Modifications.aspx) |
| [Meeting 59 SEMO Slides](http://semopub/MarketDevelopment/ModificationDocuments/SEMO%20presentation%20on%20MWP_Publish.ppt) |
| [SEMO Slides Extraordinary Meeting 60](http://semopub/MarketDevelopment/ModificationDocuments/SEMO%20Slides%20Meeting%2060.pdf) |
| [Electroroute Slides Meeting 60](http://semopub/MarketDevelopment/ModificationDocuments/Electroroute%20slides%20Meeting%2060.pdf) |
| [MWP Feedback and responses](http://semopub/MarketDevelopment/ModificationDocuments/MWP%20Feedback%20and%20Responses.zip) |
| [Participant MWP Feedback and responses](http://semopub/MarketDevelopment/ModificationDocuments/Participant%20feedback%20on%20MWPs%20Mod%20proposals.zip) |

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# MODIFICATIONS COMMITTEE RECOMMENDATION

## Recommended for rejection – majority Vote

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| **Recommended for Rejection by Majority Vote** | | |
| Áine Dorran | Generator Member | Rejected |
| Brian Mongan | Generator Member | Rejected |
| Connor Powell | Supplier Member | Rejected |
| Julie-Anne Hannon | Supplier Alternate | Rejected |
| Kevin Hannafin-Chair | Generator Member | Rejected |
| Mary Doorly | Generator Member | Approved (however expressed preference for Mod\_09\_14) |
| Patrick Liddy | DSU Member | Approved |
| William Carr | Supplier Member | Rejected |
| William Steele | Supplier Member | Rejected |

# Background

This Modification Proposal was raised by Electroroute and was received by the Secretariat on 20 November 2014. The purpose of this modification is to amend the code so that Interconnector Units no longer receive Make Whole Payments for half hour trading periods where both import and export trades have been nominated.

The Modification Proposal was discussed at Meeting 58 on 04 December 2014, Meeting 59 on 12 February 2015 and Extraordinary Meeting 60 where it was voted on.

# PURPOSE OF PROPOSED MODIFICATION

## 3A.) justification of Modification

The current design of the SEM does not treat imports from and exports to the neighbouring GB market equally. The Regulatory Authorities have been aware of the issues that this disjoint raises for some time, and indeed the proposer of the current modification presented on these topics to the Regulatory Authorities last year. Given the island of Ireland’s significant potential as an exporter of electricity and the importance of cross-border trade at a European level the proposer welcomes renewed attention on this important topic and would hope to see positive steps emerge towards improving the efficiency of the international energy import/export arrangements.

The essential problem for exporters from the SEM market is that the core market design dictates that the participant is locked ahead of time into a fixed flow volume, whilst simultaneously having no control over its costs due to the ex-post uplift mechanism. The Make Whole Payment mechanism in the T&SC was designed to address this failing and ensure that efficient cross border trade in both directions is possible.

On 14 November 2014 the Regulatory Authorities raised two T&SC modifications aimed at reducing total Make Whole Payments (MWPs), justified on the basis that the MWP costs have increased by €2-3m per annum over the last two years, and the consequent effect that this has had on the Imperfections Charge to the market (which including other contributing factors totalled roughly €180 million in the same period). The modifications that the Regulatory Authorities proposed address this recent increase in imperfection charges by reducing or removing Make Whole Payments to Interconnector Users.

The proposer believes that the impact of the Regulatory Authorities’ modification proposals, if enacted, would be to radically reduce exports from SEM into GB.

Whilst the issues are complex and multi-faceted, the key aspects are broadly outlined below:

* Make-whole payments are inextricably linked to export flows from the SEM to the GB market. A recent increase in Make Whole Payments relates to an increase in export trade activity from the SEM market.
* With the SEM and GB market converging in price over the coming years, export trades will become an increasingly important and permanent aspect of the SEM market. The proposer estimates there may be around €500 million of export trades between now and the go-live of the I-SEM market. Given the scale of this figure, its value to the SEM, its value to the Irish economy and the role interconnector export has in reducing undue wind curtailment, it is vitally important that the SEM has the most appropriate mechanism with respect to export trades.

* The unconstrained market schedule is rarely an accurate reflection of Dispatch Quantities (DQs) for any given unit in the SEM. For example at any time an out-of-merit generator may be dispatched at above its Market Schedule Quantity (MSQ) if the System Operator chooses. If remunerated at only System Marginal Price the example generator will not recover its costs, but this shortfall is recognised by the T&SC and the generator receives constraint payments from SEMO in order to make it whole.

For Interconnector Units, Make Whole Payments fulfil an equivalent role: namely to prevent the Interconnector Unit from being compelled to flow at an uneconomic price. This is because Interconnector units are the only units in the SEM to have their volumes fixed in the ex-ante time frame. As such export purchases from the SEM market are exposed to significant ex-post price risk. For example an interconnector trader can bid in to export at a price of €50/MWh and be dispatched, fixing its volume in the ex-ante time frame. At times, the same volume could eventually be charged €250/MWh ex-post (or more depending on the outcome of the uplift mechanism). This represents a price far in excess of what the interconnector user stated that it would be willing to pay. Make Whole Payments have a simple but vital role in correcting this over charge.

* A change to the constraint payment mechanism within the T&SC with regards to generators would be considered momentous, and similarly any change in the Make Whole Payment principle should be understood to represent a targeted intervention discriminating against interconnector units in the SEM compared to generator units. As well as being out of step with national and European legislation and guidelines encouraging cross-border trade, this is also directly contrary to the stated Code Objective: “*to ensure no undue discrimination between persons who are parties to the Code*” (see T&SC 1.3.6).
* The relevant disjoint in the market design relates to the price signals the SEM gives to import trades and export trades respectively. Assuming that import trades and export trades are executed from different ex-ante gates, at present the respective price signal can be simplified as follows:
* Import Trade Price Signal based on : SMP + CPGP
* Export Trade Price Signal based on: Bid Price + CPGP

Both price signals are undoubtedly valid in of themselves, with the export price signal closer to pure “social welfare maximising” market principles. However, the discrepancy in price signals can at times result in import and export flows being rationally dispatched in different ex-ante gates in the same half hour period. This netted flow and its interaction with the Make Whole Payment mechanism gives rise to the concerns expressed by the Regulatory authorities Mod\_09\_14.

The proposer strongly opposes the discriminatory removal of Make Whole Payments for a single class of generator units. However, the proposer does agree with the regulators there is no need for netted import/export volumes across the interconnector to be eligible for Make Whole Payments. Such netted volumes are in a class of issues which includes the “flow-based” versus “flow-based-intuitive” debate in Continental Europe at present.

The proposer believes there are two clear ways of eliminating the disjoint in the market without unduly hampering efficient cross border trading or discriminating against any particular class of market participant:

1. **Remove settlement periods of simultaneous import and export flow from the Make Whole Payment mechanism**

This allows interconnector unit to simply arrange trades by deciding what periods of the day they wish to import and export. The Make Whole Payment mechanism would no longer be exposed to payments where import and export volumes are scheduled simultaneously in the same period. The proposer believes that this represents the most practical fix to the issue. This approach is the subject of this modification proposal.

1. **Elimination of the disjointed import/export price signal by moving all interconnector units to a pay as bid principle in the SEM**

Alternatively the issue could be resolved by moving all interconnector units to a “pay as bid / paid as bid” mechanism in the SEM. This will eliminate the disjointed price signal and ensure that there is only one dominant trade direction in each half hour period. A “pay as bid / paid as bid” mechanism will remove the significant ex-post price risk interconnector units face and will effectively remove them from the Make Whole mechanism entirely. At current market prices this approach would likely result in a positive contribution to the imperfection charges pot. This approach is subject to a separate alternative modification by the proposer entitled “*Pay-As-Bid / Paid-as-bid for Interconnector Units*” (*MOD\_11\_14*).

**Working Group**

It appears that attention has only been paid to these topics in recent times due to the increase in export flows and the introduction of the intra-day market whereby the Regulatory Authorities have observed an increase in payments from the Make Whole mechanism. However, given the importance of the area and the volume of trade (€500M) in this direction over the next three years it is important to clarify and if necessary rectify the market design in this regard. Given the significantly distorting effects of the Regulatory Authorities’ proposed modifications (Mod\_09\_14, Mod\_10\_14) on cross-border trade, the proposer suggests that a working group be established to review this preferred modification proposal and the complete suite of related issues before arriving at a final recommendation.

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

Market will continue as is with netted import/export volumes from interconnector units entering the Make Whole Payment mechanism.

## 3c.) Impact on Code Objectives

This modification aims to further Code Objective:

* 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;
* to ensure no undue discrimination between persons who are parties to the Code;
* 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

1. **Assessment of Alternatives**

N/A

# Working Group and/or Consultation

N/A

# impact on systems and resources

The vendor has confirmed this proposal would cost: €23,120.

# Impact on other Codes/Documents

N/A

# MODIFICATION COMMITTEE VIEWS

## Meeting 58 – 3 december 2014

RA Member advised that more than 90% of Exports actually did not happen as some Participants were netting them with corresponding Imports at different Gate windows. They further advised that an IC unit can bid whatever price they choose as they are not regulated. Electroroute representative expressed the view that in terms of bidding to flow, IC activity has evolved that way over the duration of the market. Proposer further advised that Electroroute are not comfortable effectively hampering “free movement of goods between borders” as specified in Directive [2006/123/EC](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32006L0123:EN:NOT) of the European Parliament and of the Council of 12 December 2006 on services in the internal market. Electroroute mentioned that they had started an internal legal review which supported this view. MO Member asked if this legal analysis could be shared with the Committee. The Electroroute replied that they are not ready to disclose this at this point.

MO Alternate reiterated RA view that Interconnector Users are not prohibited from representing costs within their bids and that it is Electroroute’s commercial decision to bid that way and ICs are not bound by the BCOP as traditional GUs are.

Observer questioned whether Interconnector bids, which currently seem not to reflect price differential between adjacent regions, would have a detrimental impact on the price coupling and efficient export flows. Observer expressed concern around the introduction of a market imbalance and of the impact on constraints if pay/paid as bid were introduced. Electroroute representative advised that constraints could happen but that it should not be viewed as a significant risk.

DSU Member stated that as over 90% of exports traded did not actually happen, were the dispatchers incorrect to have sold the power in the first instance. Electroroute representative expressed the view that they were not illegitimate trades and that this type of trading is frequently seen on the continent.

DSU member also asked if this indicated a flaw within the scheduling software. Observer advised that the market solver optimises Schedule Production Costs based on the bids submitted, and that MWPs are calculated in Settlement and are therefore not considered by the Pricing and Scheduling software. Generator Member expressed the view that there appears to be a discrepancy between export bids and SMP. In order for flows in both directions to be scheduled, the import bid would have to be less than Shadow Price and the export bid would have to be greater than Shadow Price..

Observer elaborated that trading with an import bid which is less than an export bid in a given period appeared counter-intuitive. This appears to indicate an intention to sell/import to the SEM at a lower price and buy/export from the SEM at a relatively higher price. This bidding approach appeared to be loss making when considered in isolation from the Make Whole Payment mechanism. Generator Member drew reference to Mod\_ 09\_14 Amendment to MWPs for IC Units stating that the user would be made whole and that the proposed aggregation of IC Users across all gate windows is not discriminatory if it brings IC Users in line with other GUs. Electroroute representative advised that in their view, ICs would not be aligned with GUs because they bid to flow and their import trading is overstated in the Make Whole Payment aggregation.

Observer reiterated previous point that the bid is at the ICs discretion whereas GUs must bid based on the requirement of the BCOP. Electroroute representative drew reference again to the potential hampering of cross border trading. Observer said that where the link between costs of adjacent markets and bidding behaviours is lost, then the price coupling effect may also be diminished.

Observer stated that opportunity for exports based on price spread between the two markets, are expected to be concentrated at night time, which limits the exposure to Uplift. This is because Uplift is higher during evening peak time. Currently exports are observed across the entire day, which appears contrary to the concept of efficient cross border flow and the social welfare gains it is intended to bring. Observer expressed the view that in their own analysis Exports without Make Whole Payments are possible. For a specific period, ElectroRoute accounted for only 40% of the Exports but 100% of the MWPs and emphasised that other exporters were not relying on the MWPs to recover costs. Observer expressed the view that it should be possible for Electroroute to continue to export without relying on MWPs. Electroroute representative expressed concern that there is a fundamental disjoint in the market and that there is a lack of clarity from the original design. Observer sought clarifications from Electroroute in relation to whether the problem is regarding different price signals resulting in netted import and export settling at different rates or Interconnector Users receiving Make Whole Payments whenever already whole or better in aggregate across gate windows.

Electroroute representative advised that the issue is around the prices applied by the dispatcher. Observer reiterated concern that both the pay/paid as bid and removal of netted trading periods approaches could keep the Uplift exposure with the consumer as opposed to the trader who chose to make the trade and has control over the bids that govern it.

MO Alternate expressed the view that aggregating across the 3 gates may be a more appropriate course of action as Interconnector Units for individual Gates were only designed as a mechanism to implement IDT requirements. They also noted that prior to IDT it was not possible isolate trading periods with a positive contribution to MWP from those with a negative contribution to MWP. MO alternate added that there wasn’t an intention to introduce this scenario, but rather that this was a practicality of implementing IDT to allow IC units to have firm quantities for each Gate.

MO alternate stated their belief that the equivalent of a generator unit is an Interconnector User, not the Interconnector Unit. Electroroute representative expressed the view that in that case the trader would be liable to significant uncompensated risks. Observer reiterated that these would not be uncompensated, but they would be compensated only when necessary, due to not being whole in aggregate in relation to their bids, in line with all other Generator Units.

Electroroute representative advised that before IDT there was no export trading as there was only 1 trading window.

MO Alternate advised that removing periods of simultaneous Import/Export is against the principle of superpositioning which was introduced into the IDT detailed design at the request of IC traders.

Removing those periods from the Make Whole Payment aggregation will create scenarios where trading periods with large import and minimal Export would be excluded and vice versa. This means that periods where MWP should apply are excluded from the recovery and the trader is exposed to Uplift. Vice versa, periods where the Interconnector Unit has already been made whole would not be considered in the MWP calculation, therefore resulting in an overecovery. This is different from other generator units and seems at odds with the proposer intention for the mod.

MO Alternate provided the IA results that had been procured by SEMO IT at the request of the Committee at the previous Modifications Committee Meeting:

* Mod\_09\_14 Amendment to MWPs for ICUs: Cost for the first proposal in isolation: **€61,030**
* Mod\_10\_14: Assessment for the change against the current Production system **€20,060 hours**
* Assessment for the change against the amended functionality (i.e. should the calculation amendment option be considered first and the removal after). **€20,910 – (this would be in addition to the above estimate of €61,030 for Mod\_09\_14**)

Discussion ensued in relation to whether a vote taking place in January would delay implementation of whichever proposal was approved. The Committee did not feel comfortable to vote on any of the four MWP proposals at the Meeting and requested further information on the proposals from the RAs and Electroroute.

Generator Member expressed the view to see the impact of the proposals in relation to whether exports could continue, impact of curtailment of wind generation and further explanation of social welfare analysis presented by Electroroute. Generator Member expressed the need to see further RA analysis as to whether all of the MWPs are associated with exporting. Chair concluded the discussion advising that the issue must be urgently addressed and that more information on all of the proposals is necessary, prior to scheduling an extraordinary meeting/call with Participants in mid-January.

## Meeting 59 – 12 february 2015

A number of members and observers expressed concern at the lack of detailed response from the RAs. RA Member advised that they have provided their rationale for the proposals and these are now within the domain of the Modifications Committee. It is up to the Committee to deliberate the issues and decide how best to proceed. RA Member welcomed Committee views on what the RAs could have done differently when submitting their two proposals on MWPs.

IC representative proposer expressed the view that there is a need for a higher level of engagement in the discussion from the RAs as proposer. Supplier Member expressed the view that what the RAs have done when raising the proposals is absolutely correct, however expressed the view of the necessity for the RAs to engage in the discussion as proposer of 2 of the MWP proposals. RA Member advised that some of the questions posed were fundamental market design issues, and that these concerns are best addressed by the Modifications Committee.

MO Member delivered a [presentation](http://semopub/MarketDevelopment/ModificationDocuments/SEMO%20presentation%20on%20MWP_Publish.ppt) covering the mechanism of Make Whole Payments (MWPs) in the SEM. This presentation covered the rationale behind the payment and also provided Market Operator comments regarding the four relevant modifications. MO Member advised that for the purposes of the Code, MWPs was intended to be an occasional payment in the exceptional circumstances where costs are not recovered, through energy payments and uplift. Units with negative schedules, such as Pumped Storage or IC units exporting, are exposed to Uplift for their negative amounts and therefore they might not recover their costs; This is less of an issue for Pumped Storage as they are limited in the amount of negative energy they can provide while IC units could, in theory be exporting for large periods. IC users are considered equivalent to a Generator Unit not the individual IC Gate Unit. Gate Units were created to respond to the IDT design need to firm schedule amount for IC in each Gate. By paying MWP to IC Gate Units, IC have the ability to isolate loss making periods from over-recovery periods, something that no other GU could do in the SEM. MO Member further advised that the MWP amounts that are paid out on a weekly basis, are then recovered through the Imperfections Charge to Suppliers and provided examples of current payments for sample units. Questions were taken throughout and after the presentation addressing the various positions regarding these modifications with a separate afternoon session to continue the discussion.

Chair asked whether increases in MWP were due to IDT. MO member showed in the graph that the increase was not a direct consequence of IDT because it happened nearly one year after IDT went live, but it is more a consequence of the changes in trading behaviours that were possible because of IDT. Chair suggested that this time lag does not necessarily rule out IDT as an explanatory factor. MO Member also explained the unusual nature of the highest payments all referring to the Ex-Ante 2 Gate of the same Party; MWP were not intended to be a regular payment stream.

MO alternate said that large increase of MWP seemed to coincide with increase in netting import and export volumes at different Gates. Observer replied this was due to the growth in the company.

DSU Member queried as to where constraint payments fit into the MWP mechanism. MO Member advised that constraints do not fit in to the MWP mechanism and that just the energy payments are taken in consideration.

Generator Member sought clarification in relation to unlimited exports of IC Users due to superpositioning introduced by IDT, querying as to whether IC Users are limited as to the amount an IC User can import and export. MO Member advised that as long as there is enough capacity on the opposite side, IC Users are not limited by IC capacity due to superpositioning.

IC representative proposer drew attention to disjointed price signals within the SEM and the significant ex-post price risk IC Units face when exporting however expressed agreement that there is an issue that needs to be addressed. MO Alternate drew attention to the issue of IC User’s bids import bids being lower than export bids. MO Member advised that other exporters on EWIC do that without the need for MWPs. GU member said that they were the 2nd largest exporter on IC and they did not get MWP. IC representative proposer expressed the view that it is the nature of the self-dispatch versus central dispatch aspect of the market and they would welcome a debate on this.

Discussion ensued in relation to netting volumes, IC representative proposer explained that the import would be paid SMP and the export paid via MWPs at a different lower rate, and that does amount to a difference in payments. MO member advised that this did not affected recovery of costs; netting would still allow MWP where necessary as demonstrated in the presentation graphs. Discussions continued on the nature of costs to be recovered via Uplift that are specific to standard Generator and whether IC Users should rely on MWP or they should find ways of edging their risks differently. Observer questioned whether Suppliers should be getting MWP as well given that IC users act as a Supplier when exporting.

In conclusion of the morning session the Committee rejected proposals MOD\_10\_14 Removal of MWPs for IC Units and MOD\_11\_14 Pay as bid/Paid as bid for IC Units on the basis that neither were considered viable solutions to the issue identified, leaving two remaining modifications for further discussion following the break, Mod\_09\_14 and Mod\_12\_14.

Chair drew reference to the issue of discrimination that had previously been raised by ElectroRoute, advising that as stated in the SEMO MWP slides, APTG, VPTG and PPTG’s do not receive MWPs and observer mentioned that it is common to have different rules for different unit types.

On the recommendation of the Chair, the afternoon session aimed to discuss the different variants between the two remaining modifications. Chair queried as to whether SEMO had a preference between the 2 proposals that remain open for discussion. MO Member expressed the view that it is up to the Committee to decide on the most suitable approach and the MO can facilitate any of the proposed MODs. IC representative proposer expressed IC representative proposer preference for Mod\_12\_14.

Supplier Member drew attention to the urgency of the necessity to address the issue. Chair agreed and expressed the view that the Committee have recognised the urgency. IC representative proposer advised that they welcome the debate and are of the view of a need for an appropriate forum with input from the RAs to be established for the relevant parties to deliberate the fundamental issues. Generator Member expressed the view that a Working Group would not be beneficial as there would be no additional information for this specific issue and that an Extraordinary meeting would be a more appropriate forum. Further advised that the SEMO presentation was very useful in assisting in understanding the background to MWPs. The Committee were in agreement that a WG would not be beneficial and agreed to convene an Extraordinary Meeting.

Supplier Member proposed suggestion of using the Shadow Price instead of Market Offer Price in addition to the aggregation proposed in MOD\_09\_14 which may address IC Users concerns. Generator Member drew attention to whether potential amendments to Mod\_12\_14 to calculate MWP on a trading period or daily basis, would be possible.

Chair requested inputs and comments from other IC users. Observer said that they were satisfied that MOD\_10\_09 had been rejected and that they would agree with either of the remaining options.

MO Alternate advised that the issue is that, removing TPs of simultaneous Import and Export, could carry an under or over-recovery that is then disregarded. Observer agreed with MO alternate that MOD\_12\_14 would undo IDT by limiting freedom of trades between Gates.

Observer advised that the trading of exports on the IC is a separate issue. Observer acknowledged that there are flaws within the SEM.

Following this discussion it was agreed by the Committee that the appropriate next steps would be to allow two weeks to develop the proposed alternative version of MOD\_09\_14 by Supply Member and a potential new version of Mod\_12\_14 by the proposer encompassing the suggestions discussed during the meeting. Both proposers have agreed to engage with SEMO in order to progress an Impact Assessment of the revised Mods and to discuss potential consequences of the changes. Before the next meeting an Extraordinary meeting will also be held to discuss the modifications with a view to progressing this issue. Actions are recorded under the respective Modification Proposals.

## extraordinary Meeting 60 – 24 march 2014

## make whole payments discussion (On remaining two Modification proposals Mod\_09\_14\_V2 and Mod\_12\_14)

Secretariat confirmed that Mod\_10\_14 and Mod\_11\_14 were Recommended for Rejection at Meeting 59 leaving the two remaining proposals to be considered at the Meeting with a view to bringing these proposals to a vote. Proposer of MOD\_12\_14 did not consider necessary to submit an updated version of their proposal and circulated a justification note to that regard.

MO Member delivered a presentation detailing minor algebra and wording clarifications required for the final legal drafting of both Mods. Impact Assessments have been completed with costings estimated at €112,100 for Mod\_09\_14 version 2 and no changes to the cost of €23,120 for Mod\_12\_14. It was communicated that a summer timescale could be achievable for implementation of any required systems changes, pending approval from SEM Committee.

Electroroute representative also delivered a presentation summarising the Make Whole Payments discussion process to date and the variances between the remaining proposals. Electroroute representative stated that Mod\_12\_14 was still their preferred proposal however advised that both proposals represent an improvement to the current situation

Supplier member provided a brief overview of the alternative version to Mod\_09\_14.

The Chair invited comments for discussion.

Observer opened the discussion by conveying their sense that this modification process is as a result of the flaws in the existing market design and that Interconnector bidding methods should be changed rather than attempting to change the rules, as it is not clear why are they bidding this way for Imports. Observer further advised that there is no perfect solution.

Electroroute representative agreed that bidding behaviour in general needed to be addressed in the market and that this was a wider and deeper issue. It was felt that vision was lacking in relation to the operation of interconnectors in the market.

Observer advised that it is not the time to look at restructuring the market with I-SEM being developed and that there is no perfect solution to this current issue. There are higher level European directives that also affect future outcomes and issues regarding derogation.

Generator Member was keen to explore the financial implications in implementing the remaining proposals in respect of reducing the volume of make whole payments.

MO Member was unable to provide specific figures but could confidently state that both proposals would allow for substantial reductions in the current volumes of make whole payments at the current level of trade. MO Member clarified that the highest payment at the current trade level is approximately €100,000.00. MO Member further clarified that under Mod\_12\_14, MWPs would also not be paid if any type of repositioning is attempted.

DSU Member enquired as to whether it is possible to only export and still receive Make Whole Payments. MO Member clarified that this is correct however your net position would be export so there would be flow in that direction that justify the payment. Supplier Member advised that there would be an opportunity cost associated with that type of trading.

Supplier Alternate noted that while it appears that Mod\_09\_14\_V2, may not impact the value of the interconnector capacity that has already been bought, any affect on the value of interconnector capacity already purchased by the time the chosen make whole payment Mod comes into force, should be avoided. The Supplier Alternate further advised that the adoption of a make whole payment Mod will likely influence the value of the capacity, and thus it might be prudent to postpone the summer 2015 annual interconnector capacity auctions to allow for the modification to be implemented.

DSU Member advised that interconnector auctions are outside the remit of the Modifications (and ultimately the SEM) Committee.

RA Member was in agreement that the auctions are outside of the Committee scope and that the implementation of the remaining Mods should not affect the interconnector Capacity Auctions.

Observer expressed the view that if an IC User takes an export position only, this would reduce the value of import capacity.

RA Member advised that this approach suggests that IC Users are placing an additional value on the ability to net MWPs. RA Member advised that the proposals do not eliminate MWPs for IC Users however it can be raised as a separate issue afterwards if deemed necessary.

Observer advised of the possibility of some traders who are currently active in both the import and export markets, deciding to export only to avoid any potential impact on their MWPs, if MOD\_12\_14 was to be implemented.

Observer clarified that the decision for only importing or exporting is taken for each trading period.

Chair suggested any such concerns regarding the interconnector capacity auctions could be reflected in the Final Recommendation Report along with any other views.

Supplier Member advised that neither proposal closed off all the outstanding issues and asked that the overall situation is monitored going forward to assess future patterns in payment mechanisms.

Generator Member sought clarification as to whether Mod\_09\_12 version 1 needed to be voted on.

Secretariat advised that should the Committee want to do so a vote could be taken, however, normal practice is that the alternative version of the modification was only voted on and the original version becomes redundant upon submission of an alternative version.

Generator Member also asked that the RAs continue to monitor the situation on an ongoing basis to assess escalating cost implications as whichever proposal was approved was not a perfect fix to this issue.

Electroroute representative expressed the preference for a possible working group to be set up to look at the whole area of cross border trades, as this is an area of the market that is currently lacking any depth, if the issue was to be discussed again in the future.

Chair advised that this area should have been visited as part of the Intra Day Trading design process.

Generator Member asked that analysis be undertaken to establish changes in the market affected by any implemented modification. Also stated that a further modification proposal process may be needed to address further issues.

Supplier Alternate expressed the view that a decision on the MWP issue should be made as soon as possible as the values of interconnector capacity are likely to be affected.

Observer also wanted it noted that there was a clear need for direction and definition of how the market should work and questioned if this could be addressed.

RA member questioned how such direction could be implemented as Interconnectors are not licenced.

Observer suggested that Mod\_11\_14 Pay as Bid may provide a base for such a solution.

Chair asked for any further comments or discussion. No more discussion was required and the vote took place on both modifications (subject to legal drafting as proposed by SEMO).

Chair suggested that in the event that both modifications were approved a preference could be stated at the time of voting.

# Proposed Legal Drafting

4.140 The Market Operator shall procure that Make Whole Payments shall be calculated on a Billing Period basis for each Generator Unit u that is not an Interconnector Unit in Billing Period b, as follows:



Where:

MWPub is the Make Whole Payment for Generator Unit u in Billing Period b;

MOPuh is the Market Offer Price of Generator Unit u in Trading Period h;

SMPh is the System Marginal Price for Trading Period h;

MSQLFuh is the Loss-Adjusted Market Schedule Quantity for Generator Unit u in Trading Period h;

TPD is the Trading Period Duration;

MNLCLFuh is the Loss-Adjusted Market No Load Cost for Generator Unit u in Trading Period h;

MSQCCLFuh is the Loss-Adjusted Market Schedule Quantity Cost Correction for Generator Unit u in Trading Period h;

MSUCLFuh is the Loss-Adjusted Market Start Up Cost for Generator Unit u in Trading Period h;

the summation is over all Trading Periods h in Billing Period b excluding any Trading Periods h in which the Generator Unit is Under Test.

4.140A

The Market Operator shall procure that Make Whole Payments shall be calculated on a Billing Period basis for each Interconnector Unit u in Billing Period b, as follows:

Step 1: For each Interconnector User i comprising Interconnector Units u the Make Whole Eligibility Indicator MWEIuh) for each Trading Period shall be calculated as set out below:

If MSQuhm ≥0 where MSQuhm is the Market Schedule Quantity for Interconnector Unit u, in Trading Period h**,** calculated by the EA1 MSP Software Run m and

If MSQuhm ≥0 where MSQuhm is the Interconnector Unit Market Schedule Quantity for Interconnector Unit u, in Trading Period h**,** calculated by the EA2 MSP Software Run m and

If MSQuhm ≥0 where MSQuhm is the Interconnector Unit Market Schedule Quantity for Interconnector Unit u, in Trading Period h**,** calculated by the WD1 MSP Software Run m

then

MWEIuh = 1

else

If MSQuhm ≤0 where MSQuhm is the Interconnector Unit Market Schedule Quantity for Interconnector Unit u, in Trading Period h**,**calculated by the EA1 MSP Software Run m and

If MSQuhm ≤0 where MSQuhm is the Interconnector Unit Market Schedule Quantity for Interconnector Unit u, in Trading Period h**,** calculated by the EA2 MSP Software Run m and

If MSQuhm ≤0 where MSQuhm is the Interconnector Unit Market Schedule Quantity for Interconnector Unit u, in Trading Period h**,** calculated by the WD1 MSP Software Run m

then

MWEIuh = 1

else

MWEIuh = 0

Step 2:



Where:

MWPub is the Make Whole Payment for Interconnector Unit u in Billing Period b;

MOPuh is the Market Offer Price of Interconnector Unit u in Trading Period h;

SMPh is the System Marginal Price for Trading Period h;

MSQLFuh is the Loss-Adjusted Market Schedule Quantity for Interconnector Unit u in Trading Period h;

TPD is the Trading Period Duration;

MSQCCLFuh is the Loss-Adjusted Market Schedule Quantity Cost Correction for Interconnector Unit u in Trading Period h;

MWEIuh is the Make Whole Eligibility Indicator for Interconnector Unit u in Trading Period h;

the summation is over all Trading Periods h in Billing Period b excluding any Trading Periods h in which the Interconnector Unit is Under Test.”

Glossary

|  |  |
| --- | --- |
| Make Whole Payment | means a payment in respect of each Generator Unit and in respect of each Interconnector User, designed to make up any difference between the total Energy Payments for the Generator Unit in a Billing Period and the total of the Schedule Production Cost for that Generator Unit for each Trading Period within the Billing Period (where the difference is arithmetically positive calculated over the Billing Period) as set out in paragraph 4.140 and 4.140A or as otherwise specified in Section 5. |

# legal review

Complete

# IMPLEMENTATION TIMESCALE

It is proposed that this Modification is not implemented as the Modifications Committee have Recommended it for Rejection.

# Appendix 1: Mod\_12\_14 Amendment to Make Whole Mechanism to remove Settlement Periods of simultaneous import and export flows

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **MODIFICATION PROPOSAL FORM** | | | | | |
| **Proposer** | **Date of receipt** | | **Type of Proposal** | | **Modification Proposal ID** |
| **ElectroRoute Energy Trading Limited** | **20 November 2014** | | **Standard** | | **Mod\_12\_14** |
| **Contact Details for Modification Proposal Originator** | | | | | |
| **Name** | | **Telephone number** | | **Email address** | |
| **Eamonn O’Donoghue**  **Ronan Doherty** | | **+353 (0) 1 687 7122** | | [ronan.doherty@electroroute.com](mailto:ronan.doherty@electroroute.com)  [eamonn.odonoghue@electroroute.com](mailto:eamonn.odonoghue@electroroute.com) | |
| **Modification Proposal Title** | | | | | |
| **Amendment to Make Whole Mechanism to remove Settlement Periods of simultaneous import and export flows** | | | | | |
| **Documents affected**  *(delete as appropriate)* | | **Section(s) Affected** | | **Version number of T&SC or AP used in Drafting** | |
| **T&SC** | | **T&SC 4.140-4.140A (new)** | | **T&SC 16.0** | |
| **Explanation of Proposed Change**  *(mandatory by originator)* | | | | | |
| The purpose of this modification is to amend the code so that Interconnector Units no longer receive Make Whole Payments for half hour trading periods where both import and export trades have been nominated. | | | | | |
| **Legal Drafting Change**  *(Clearly show proposed code change using* ***tracked*** *changes, if proposer fails to identify changes, please indicate best estimate of potential changes)* | | | | | |
| 4.140 The Market Operator shall procure that Make Whole Payments shall be calculated on a Billing Period basis for each Generator Unit u that is not an Interconnector Unit in Billing Period b, as follows:    Where:  MWPub is the Make Whole Payment for Generator Unit u in Billing Period b;  MOPuh is the Market Offer Price of Generator Unit u in Trading Period h;  SMPh is the System Marginal Price for Trading Period h;  MSQLFuh is the Loss-Adjusted Market Schedule Quantity for Generator Unit u in Trading Period h;  TPD is the Trading Period Duration;  MNLCLFuh is the Loss-Adjusted Market No Load Cost for Generator Unit u in Trading Period h;  MSQCCLFuh is the Loss-Adjusted Market Schedule Quantity Cost Correction for Generator Unit u in Trading Period h;  MSUCLFuh is the Loss-Adjusted Market Start Up Cost for Generator Unit u in Trading Period h;  the summation is over all Trading Periods h in Billing Period b excluding any Trading Periods h in which the Generator Unit is Under Test.  4.140A  The Market Operator shall procure that Make Whole Payments shall be calculated on a Billing Period basis for each Interconnector Unit u in Billing Period b, as follows:  Step 1: For each Interconnector Unit u the Make Whole Eligibility Indicator MWEIuh) for each Trading Period shall be calculated as set out below:  If MSQuhm ≥0 where MSQuhm is the Interconnector Unit Market Schedule Quantity calculated by the EA1 MSP Software Run m and  If MSQuhm ≥0 where MSQuhm is the Interconnector Unit Market Schedule Quantity calculated by the EA2 MSP Software Run m and  If MSQuhm ≥0 where MSQuhm is the Interconnector Unit Market Schedule Quantity calculated by the WD1 MSP Software Run m  then  MWEIuh = 1  else  If MSQuhm ≤0 where MSQuhm is the Interconnector Unit Market Schedule Quantity calculated by the EA1 MSP Software Run m and  If MSQuhm ≤0 where MSQuhm is the Interconnector Unit Market Schedule Quantity calculated by the EA2 MSP Software Run m and  If MSQuhm ≤0 where MSQuhm is the Interconnector Unit Market Schedule Quantity calculated by the WD1 MSP Software Run m  then  MWEIuh = 1  else  MWEIuh = 0  Step 2:    Where:  MWPub is the Make Whole Payment for Interconnector Unit u in Billing Period b;  MOPuh is the Market Offer Price of Interconnector Unit u in Trading Period h;  SMPh is the System Marginal Price for Trading Period h;  MSQLFuh is the Loss-Adjusted Market Schedule Quantity for Interconnector Unit u in Trading Period h;  TPD is the Trading Period Duration;  MSQCCLFuh is the Loss-Adjusted Market Schedule Quantity Cost Correction for Interconnector Unit u in Trading Period h;  MWEIuh is the Make Whole Eligibility Indicator for Interconnector Unit u in Trading Period h;  the summation is over all Trading Periods h in Billing Period b excluding any Trading Periods h in which the Interconnector Unit is Under Test.” | | | | | |
| **Modification Proposal Justification**  *(Clearly state the reason for the Modification)* | | | | | |
| **Background and Justification**  The current design of the SEM does not treat imports from and exports to the neighbouring GB market equally. The Regulatory Authorities have been aware of the issues that this disjoint raises for some time, and indeed the proposer of the current modification presented on these topics to the Regulatory Authorities last year. Given the island of Ireland’s significant potential as an exporter of electricity and the importance of cross-border trade at a European level the proposer welcomes renewed attention on this important topic and would hope to see positive steps emerge towards improving the efficiency of the international energy import/export arrangements.  The essential problem for exporters from the SEM market is that the core market design dictates that the participant is locked ahead of time into a fixed flow volume, whilst simultaneously having no control over its costs due to the ex-post uplift mechanism. The Make Whole Payment mechanism in the T&SC was designed to address this failing and ensure that efficient cross border trade in both directions is possible.  On 14 November 2014 the Regulatory Authorities raised two T&SC modifications aimed at reducing total Make Whole Payments (MWPs), justified on the basis that the MWP costs have increased by €2-3m per annum over the last two years, and the consequent effect that this has had on the Imperfections Charge to the market (which including other contributing factors totalled roughly €180 million in the same period). The modifications that the Regulatory Authorities proposed address this recent increase in imperfection charges by reducing or removing Make Whole Payments to Interconnector Users.  The proposer believes that the impact of the Regulatory Authorities’ modification proposals, if enacted, would be to radically reduce exports from SEM into GB.  Whilst the issues are complex and multi-faceted, the key aspects are broadly outlined below:   * Make-whole payments are inextricably linked to export flows from the SEM to the GB market. A recent increase in Make Whole Payments relates to an increase in export trade activity from the SEM market. * With the SEM and GB market converging in price over the coming years, export trades will become an increasingly important and permanent aspect of the SEM market. The proposer estimates there may be around €500 million of export trades between now and the go-live of the I-SEM market. Given the scale of this figure, its value to the SEM, its value to the Irish economy and the role interconnector export has in reducing undue wind curtailment, it is vitally important that the SEM has the most appropriate mechanism with respect to export trades.      * The unconstrained market schedule is rarely an accurate reflection of Dispatch Quantities (DQs) for any given unit in the SEM. For example at any time an out-of-merit generator may be dispatched at above its Market Schedule Quantity (MSQ) if the System Operator chooses. If remunerated at only System Marginal Price the example generator will not recover its costs, but this shortfall is recognised by the T&SC and the generator receives constraint payments from SEMO in order to make it whole.   For Interconnector Units, Make Whole Payments fulfil an equivalent role: namely to prevent the Interconnector Unit from being compelled to flow at an uneconomic price. This is because Interconnector units are the only units in the SEM to have their volumes fixed in the ex-ante time frame. As such export purchases from the SEM market are exposed to significant ex-post price risk. For example an interconnector trader can bid in to export at a price of €50/MWh and be dispatched, fixing its volume in the ex-ante time frame. At times, the same volume could eventually be charged €250/MWh ex-post (or more depending on the outcome of the uplift mechanism). This represents a price far in excess of what the interconnector user stated that it would be willing to pay. Make Whole Payments have a simple but vital role in correcting this over charge.   * A change to the constraint payment mechanism within the T&SC with regards to generators would be considered momentous, and similarly any change in the Make Whole Payment principle should be understood to represent a targeted intervention discriminating against interconnector units in the SEM compared to generator units. As well as being out of step with national and European legislation and guidelines encouraging cross-border trade, this is also directly contrary to the stated Code Objective: “*to ensure no undue discrimination between persons who are parties to the Code*” (see T&SC 1.3.6). * The relevant disjoint in the market design relates to the price signals the SEM gives to import trades and export trades respectively. Assuming that import trades and export trades are executed from different ex-ante gates, at present the respective price signal can be simplified as follows: * Import Trade Price Signal based on : SMP + CPGP * Export Trade Price Signal based on: Bid Price + CPGP     Both price signals are undoubtedly valid in of themselves, with the export price signal closer to pure “social welfare maximising” market principles. However, the discrepancy in price signals can at times result in import and export flows being rationally dispatched in different ex-ante gates in the same half hour period. This netted flow and its interaction with the Make Whole Payment mechanism gives rise to the concerns expressed by the Regulatory authorities Mod\_09\_14.  The proposer strongly opposes the discriminatory removal of Make Whole Payments for a single class of generator units. However, the proposer does agree with the regulators there is no need for netted import/export volumes across the interconnector to be eligible for Make Whole Payments. Such netted volumes are in a class of issues which includes the “flow-based” versus “flow-based-intuitive” debate in Continental Europe at present.  The proposer believes there are two clear ways of eliminating the disjoint in the market without unduly hampering efficient cross border trading or discriminating against any particular class of market participant:   1. **Remove settlement periods of simultaneous import and export flow from the Make Whole Payment mechanism**   This allows interconnector unit to simply arrange trades by deciding what periods of the day they wish to import and export. The Make Whole Payment mechanism would no longer be exposed to payments where import and export volumes are scheduled simultaneously in the same period. The proposer believes that this represents the most practical fix to the issue. This approach is the subject of this modification proposal.   1. **Elimination of the disjointed import/export price signal by moving all interconnector units to a pay as bid principle in the SEM**   Alternatively the issue could be resolved by moving all interconnector units to a “pay as bid / paid as bid” mechanism in the SEM. This will eliminate the disjointed price signal and ensure that there is only one dominant trade direction in each half hour period. A “pay as bid / paid as bid” mechanism will remove the significant ex-post price risk interconnector units face and will effectively remove them from the Make Whole mechanism entirely. At current market prices this approach would likely result in a positive contribution to the imperfection charges pot. This approach is subject to a separate alternative modification by the proposer entitled “*Pay-As-Bid / Paid-as-bid for Interconnector Units*”.  **Working Group**  It appears that attention has only been paid to these topics in recent times due to the increase in export flows and the introduction of the intra-day market whereby the Regulatory Authorities have observed an increased in payments from the Make Whole mechanism. However, given the importance of the area and the volume of trade (€500M) in this direction over the next three years it is important to clarify and if necessary rectify the market design in this regard. Given the significantly distorting effects of the Regulatory Authorities’ proposed modifications (Mod\_09\_14, Mod\_10\_14) on cross-border trade, the proposer suggests that a working group be established to review this preferred modification proposal and the complete suite of related issues before arriving at a final recommendation. | | | | | |
| **Code Objectives Furthered**  *(State the Code Objectives the Proposal furthers, see Section 1.3 of T&SC for Code Objectives)* | | | | | |
| * 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; * to ensure no undue discrimination between persons who are parties to the Code; * 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. | | | | | |
| **Implication of not implementing the Modification Proposal**  *(State the possible outcomes should the Modification Proposal not be implemented)* | | | | | |
| * Market will continue as is with netted import/export volumes from interconnector units entering the Make Whole Payment mechanism | | | | | |
| **Working Group**  *(State if Working Group considered necessary to develop proposal)* | | | **Impacts**  *(Indicate the impacts on systems, resources, processes and/or procedures)* | | |
| Working group considered necessary | | | Suggest impact similar to Regulatory Authorities’ Mod\_09\_14 – Basic amendment of Make Whole mechanism algebra -  €61K | | |
| ***Please return this form to Secretariat by email to*** [*modifications@sem-o.com*](mailto:modifications@sem-o.com) | | | | | |