



ElectroRoute

*Trading & Innovating
in Energy Markets*

ElectroRoute Overview

	Interconnector & Prompt/Spot	Forwards & Derivatives	Certificates GOOs ROCs LECs EUAs	Managed Services
Ireland	✓	✓	✓	✓
Great Britain	✓	✓	✓	✓
Netherlands	✓	✓	✓	
France	✓		✓	
Italy	✓			

Active Exchanges



- ▶ Active in 5 European countries
- ▶ Trade on borders with around 7000MW of cross border capacity
- ▶ Continued expansion with new jurisdictions and market segments coming on-line in 2015
- ▶ Analytical trading approach with high quality 24/7 operational coverage
- ▶ Many European experiences relevant to the changes in the Irish market





Modification Proposals for MWP Mechanism for Interconnector Units

Introduction

- ▶ ElectroRoute welcome the recent focus on the topic of export trading and make-whole payments (MWP) and appreciate the opportunity to contribute to the discussion at the modification committee meeting
- ▶ ElectroRoute met the RA's in 2013 and gave an overview of these issues and highlighted a concern on the overall market readiness for increased level of interconnector exports over the next 3 years
- ▶ For interconnector trading the current T&SC has some flaws in relation to disjointed price signals and the treatment of netted (simultaneous import and export) volumes in the make-whole payment mechanism
- ▶ Complex issue that can be linked to many different features of the SEM market design. Here ElectroRoute wish to discuss:
 - Make-whole payments concept for IC units
 - Treatment of netting (simultaneous import and export) by a participant

Current Mod Proposals

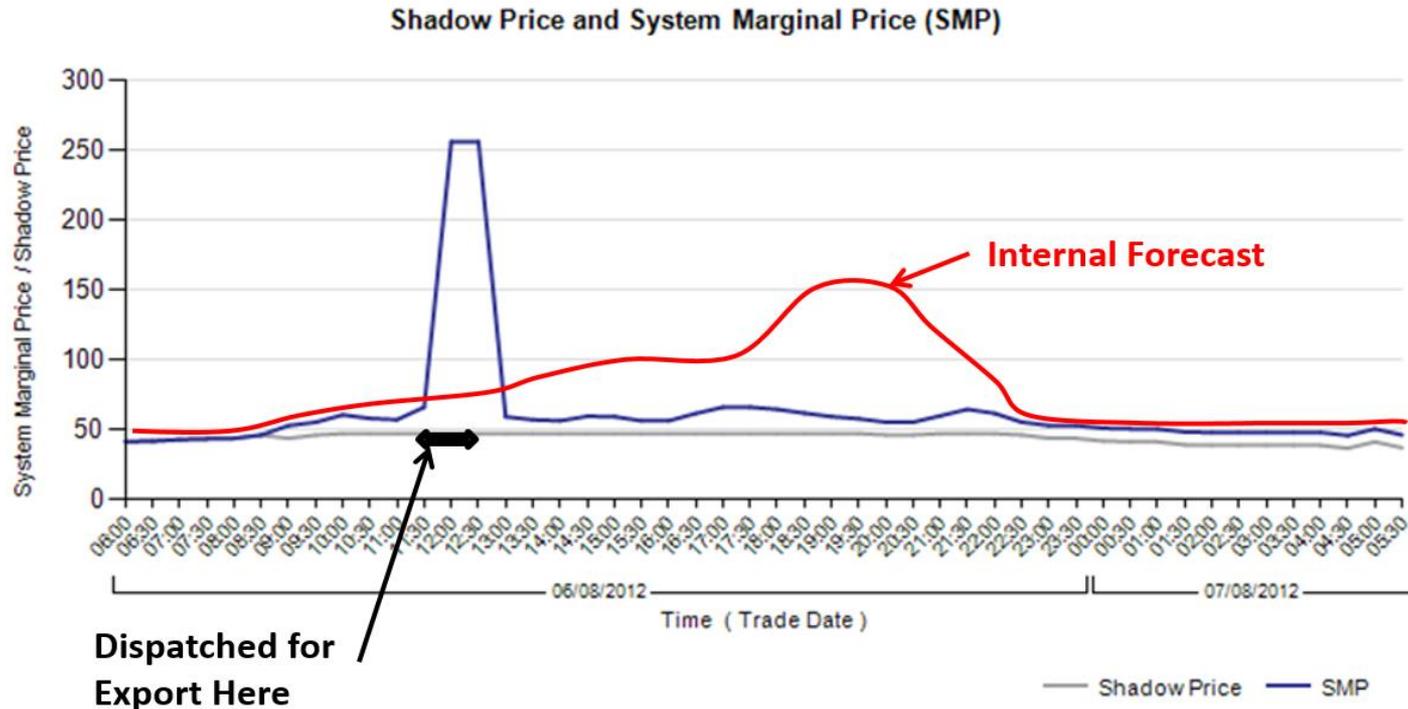
Here ElectroRoute wishes to show that:

- ▶ Make-Whole Payments are a vital component of a fair and functioning market for all unit types
- ▶ Both RA's modification's practically represent the removal of Make-Whole Payments for IC Units
- ▶ While ElectroRoute disagree with the removal of the Make-Whole Payments for IC units, ElectroRoute do agree that netted IC volumes (simultaneous import and export by a single participant) should not place a cost on the MWP mechanism
- ▶ ElectroRoute have proposed 2 modifications that address netted IC volumes and identify its preferred option

MWP for IC units – An essential market component

- ▶ One of the core principles of the SEM is that of cost recovery
 - i.e. Not being forced to run at a loss by the market
 - Achieved through constraints and make whole payment mechanisms
- ▶ Interconnector units are the only units in the SEM to have their volumes fixed in the ex-ante time frame placing large ex-post price risk on IC units
- ▶ Core issues is that bids are accepted based on the dispatcher's view of bid prices. Yet payments are based on a sometimes unrelated SMP
 - Not such a problem when importing as $SMP \gg$ shadow / bid price
 - Problematic when exporting and charged a price far in excess of that which the buyer stated they were willing to pay
- ▶ Exporting on the IC places much higher dispatch/price risk on IC units than conventional generators face since market prices tend to spike severely upwards much more than downwards

Example



- ▶ Market can rightly accept a bid to export at 50 €/MWh and then Ex-Post charge that same unit 250 €/MWh
- ▶ Unjustifiable in any field of commerce
- ▶ MWP are designed to simply correct this over charge
- ▶ Return to this concept as the sole function of MWPs

Increase in Payments Recently

- ▶ The increase in MWP results from an increase in export trading
- ▶ Remember the MWPs are not a cost but simply a statement of an overcharge somewhere else in the market
- ▶ MWP is a zero sum mechanism: No overcharge = No make-whole payment
- ▶ An observed increase in payments from an isolated market mechanism is not on its own a direct justification for modification or removal of that same mechanism

Total Make Whole Payments for the first 6 months of each year

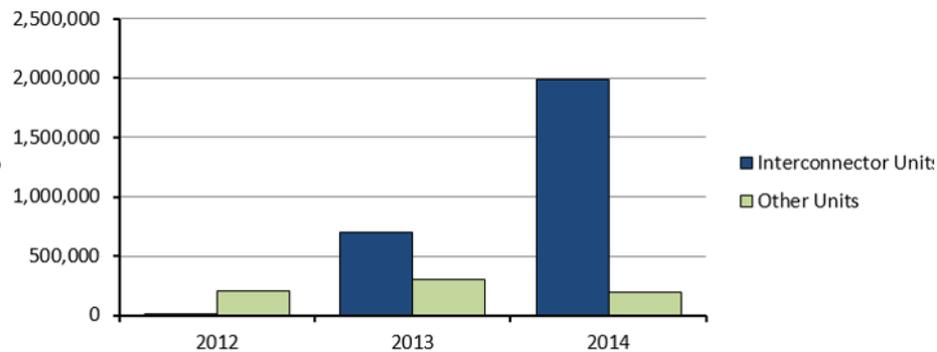
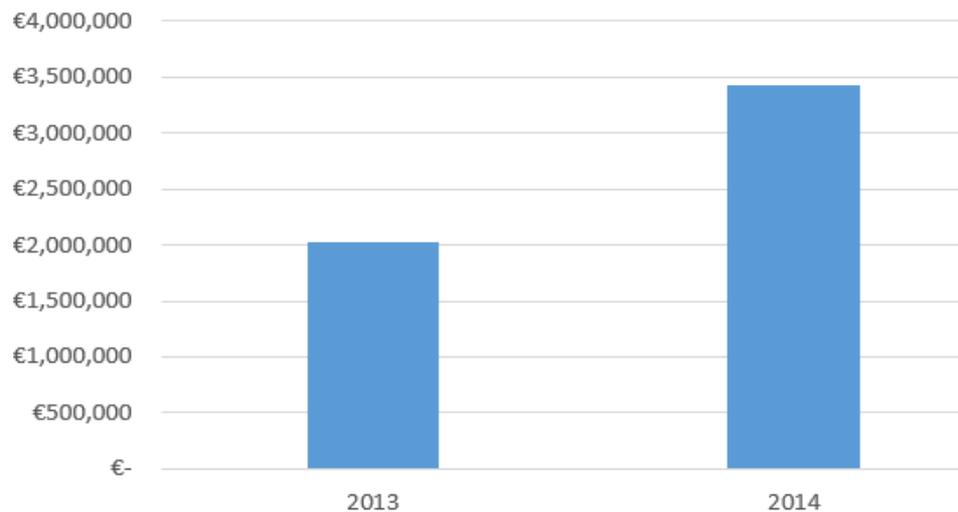


Figure 2: Total MWPs for Interconnector Users (blue) and all other units (green) for the first 6 months of the year

Estimated Social Welfare Gain due to Exports



Imperfections Charges

- ▶ If the overall target is to reduce the imperfections charge – we have targeted the wrong pot !

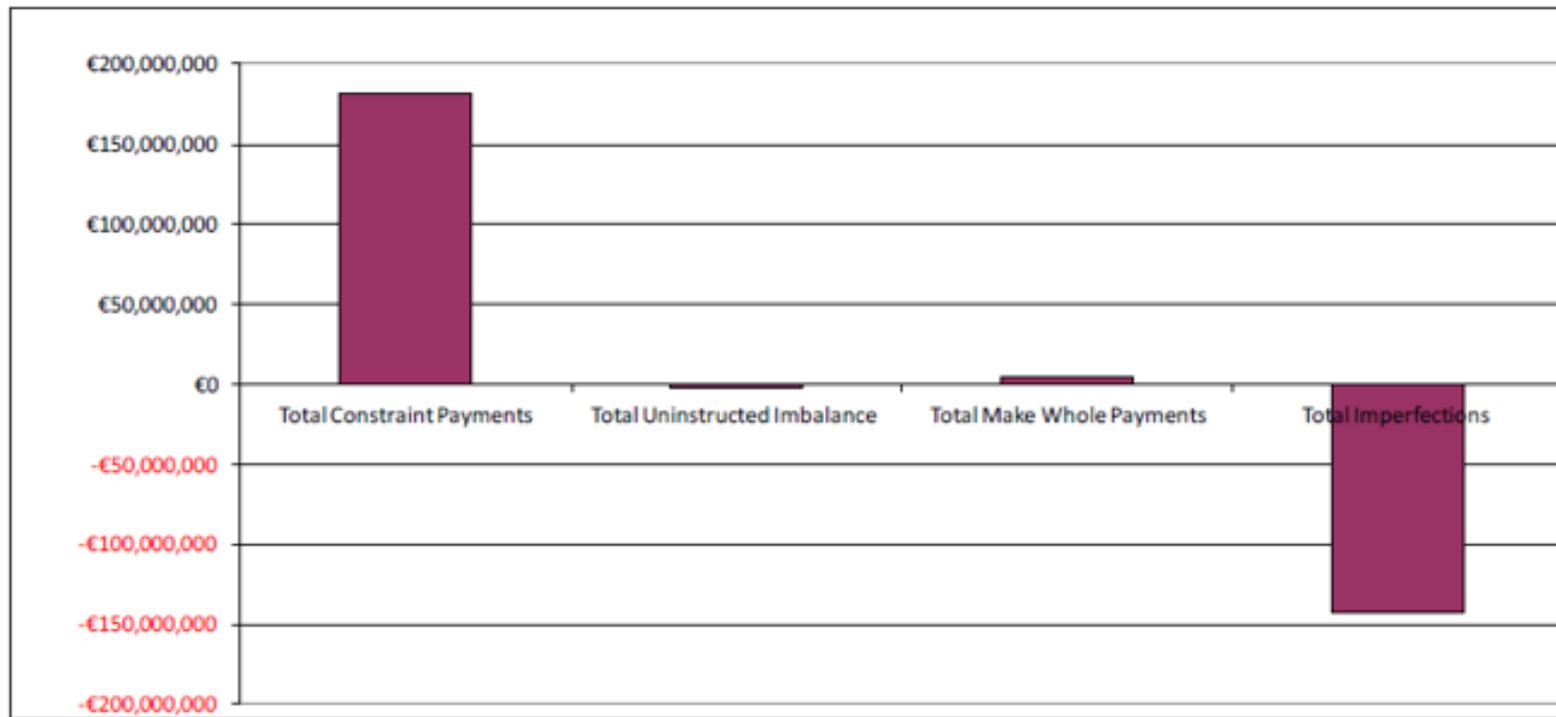
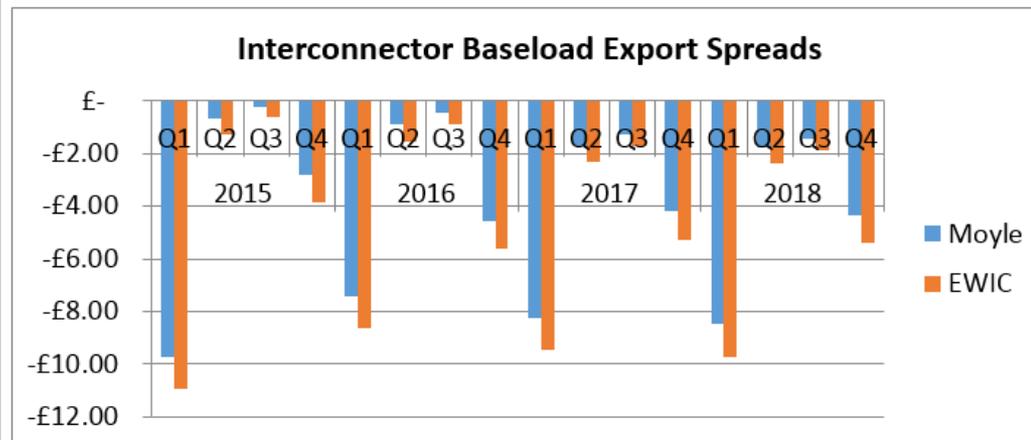
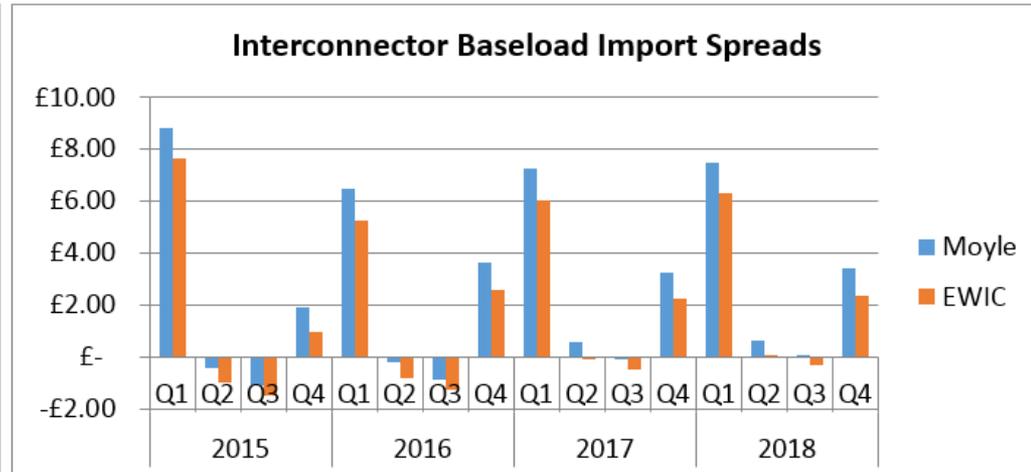


Figure 4 - Cumulative Imperfections Costs Vs Budget

Importance and Growth of Exports

- ▶ Spreads tell us exports are going to become increasingly important over the next 3 years, particularly in summer
- ▶ Could be €250 – €500M in trade over next 3 years
- ▶ Hugely important that any modification effecting this cross border trade is fully thought through
- ▶ Must note that changes in cross border trading patterns can have real impact on prices in the relevant markets ($\pm 750\text{MW}$)
- ▶ Such is the nature of the EU target model and common market



Summary – Importance of MWP

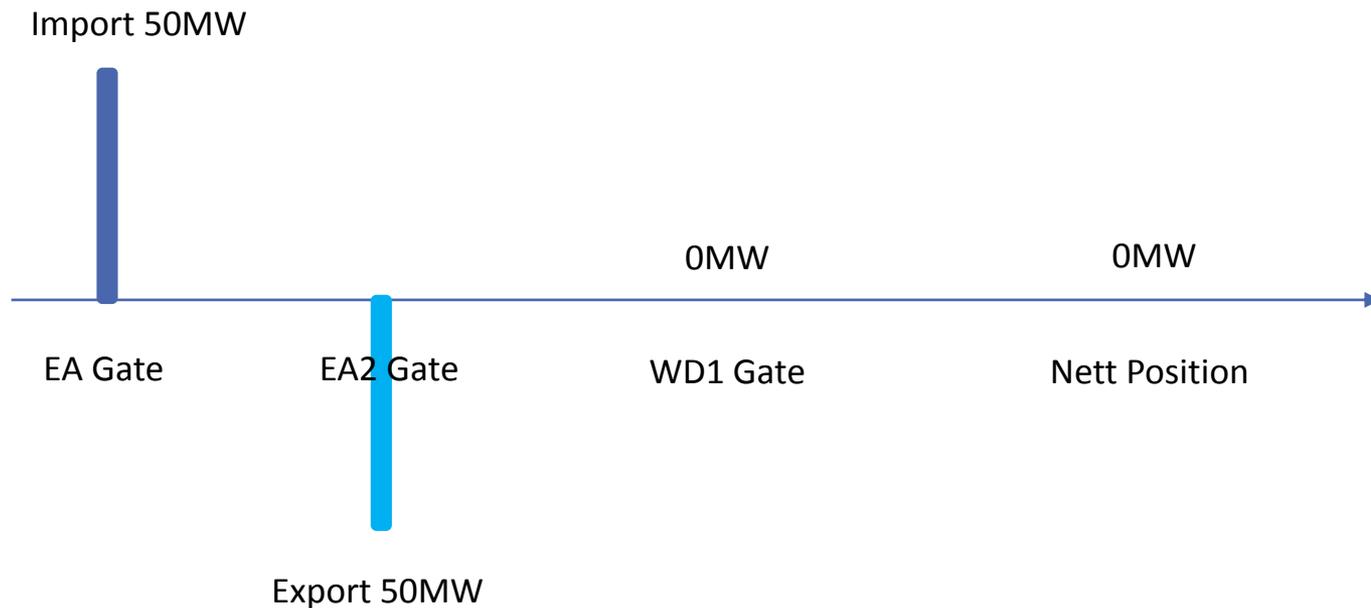
- ▶ Embedded pricing/scheduling disjoint at the heart of the SEM
- ▶ MWP are an essential component for all units in SEM
- ▶ Removal of MWPs and the Cost Recovery Principle for a single type of market participant would clearly represent undue discrimination directly contrary to Code Objectives (TSC 1.3 (6))
- ▶ A change in the level of a market payment type is not justification for its removal: MWP = Zero sum mechanism
- ▶ MWP inextricably linked to exports dispatched by the scheduler
- ▶ Exports will be a very significant component of the Irish electricity market over the next 3 years representing hundreds of millions of euros worth of trade



Issue of MWP for netted volumes within a participant account

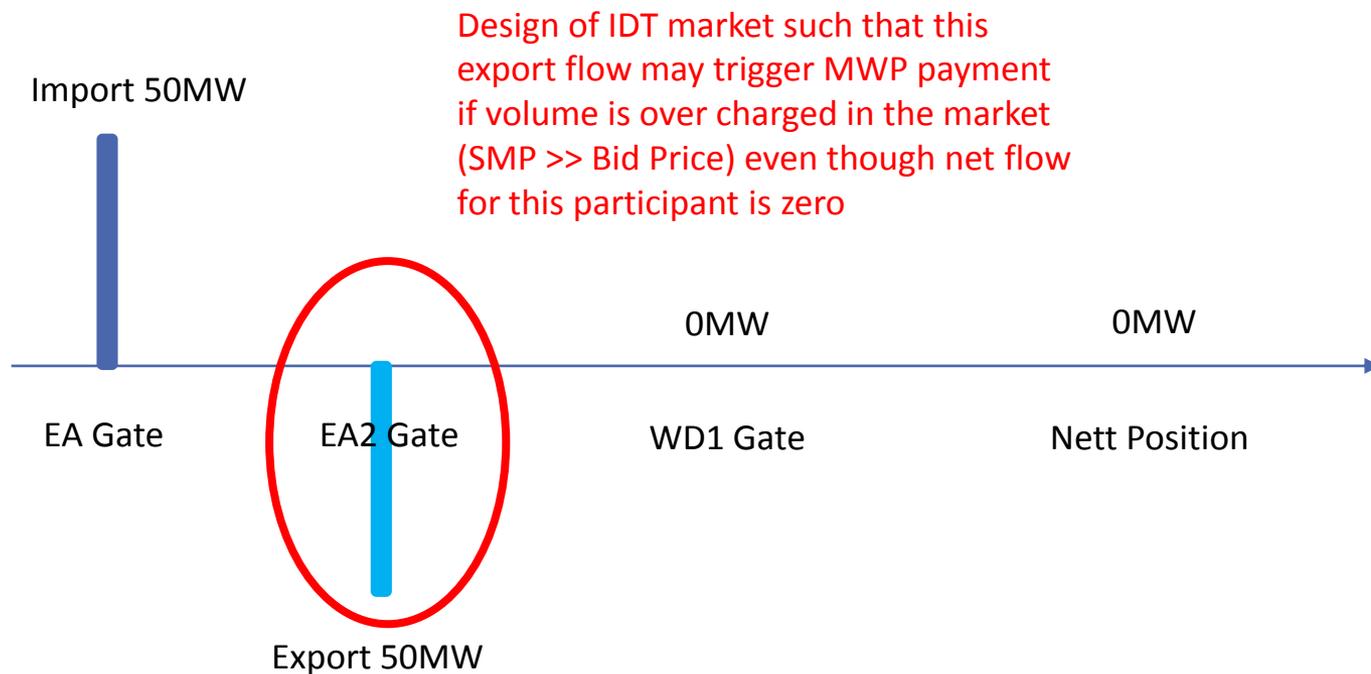
Netted Volume Issue

- ▶ Key motivation for ElectroRoute raising issues with RAs 15 months ago and assume the key motivation for RA's mods currently. See Example Half Hour Period:



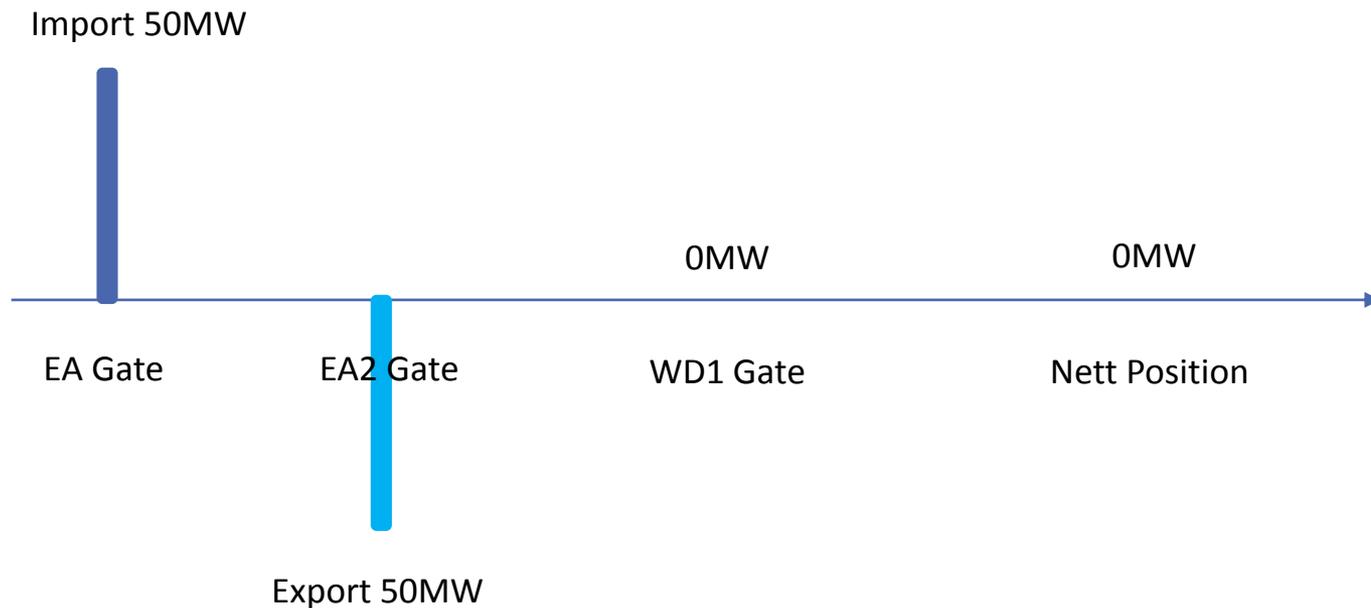
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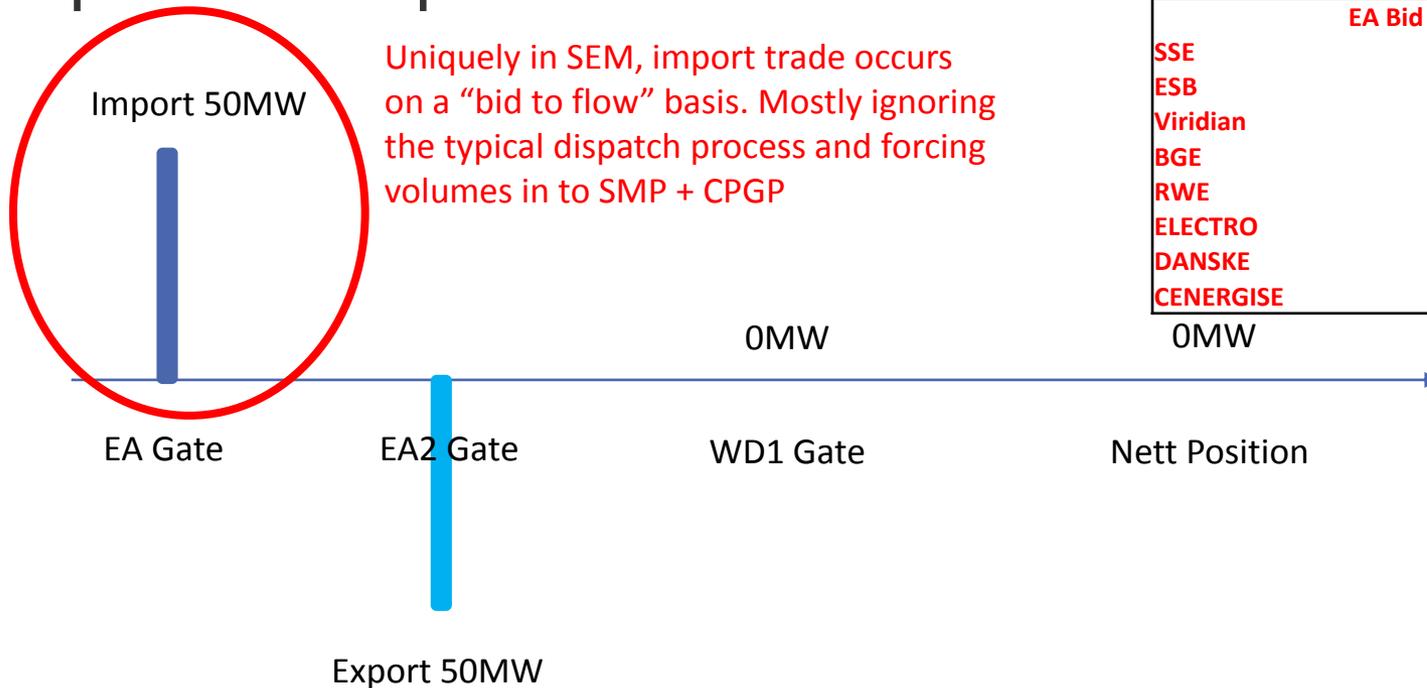
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- ▶ Because the SEM creates disjointed price signals for import and export directions



Netted Volume Issue

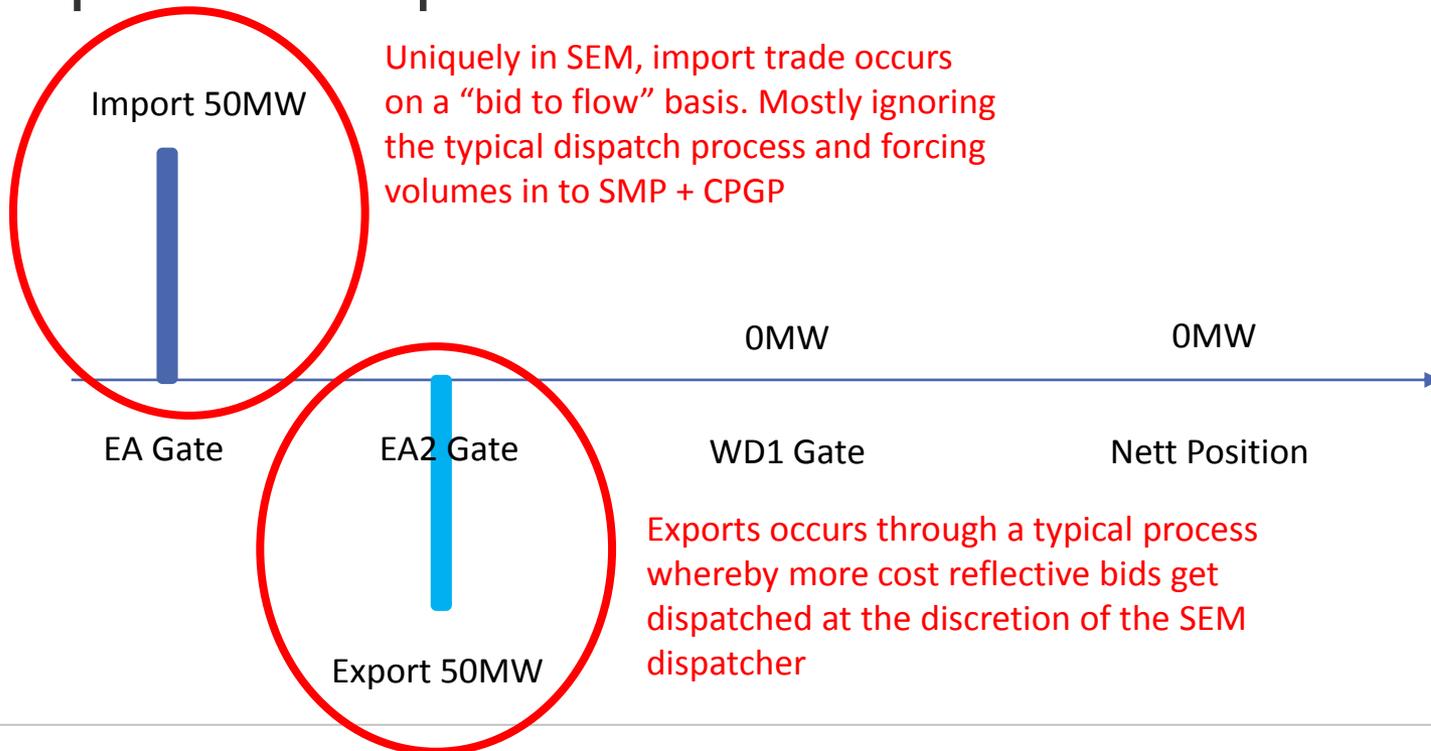
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Moyle Import Bids 6pm 30/11/2014	
	EA Bid £/MWh
SSE	10
ESB	2
Viridian	0.01
BGE	13.8
RWE	17
ELECTRO	22
DANSKE	3.96
CENERGISE	0

Netted Volume Issue

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Overview and impact of proposed modifications

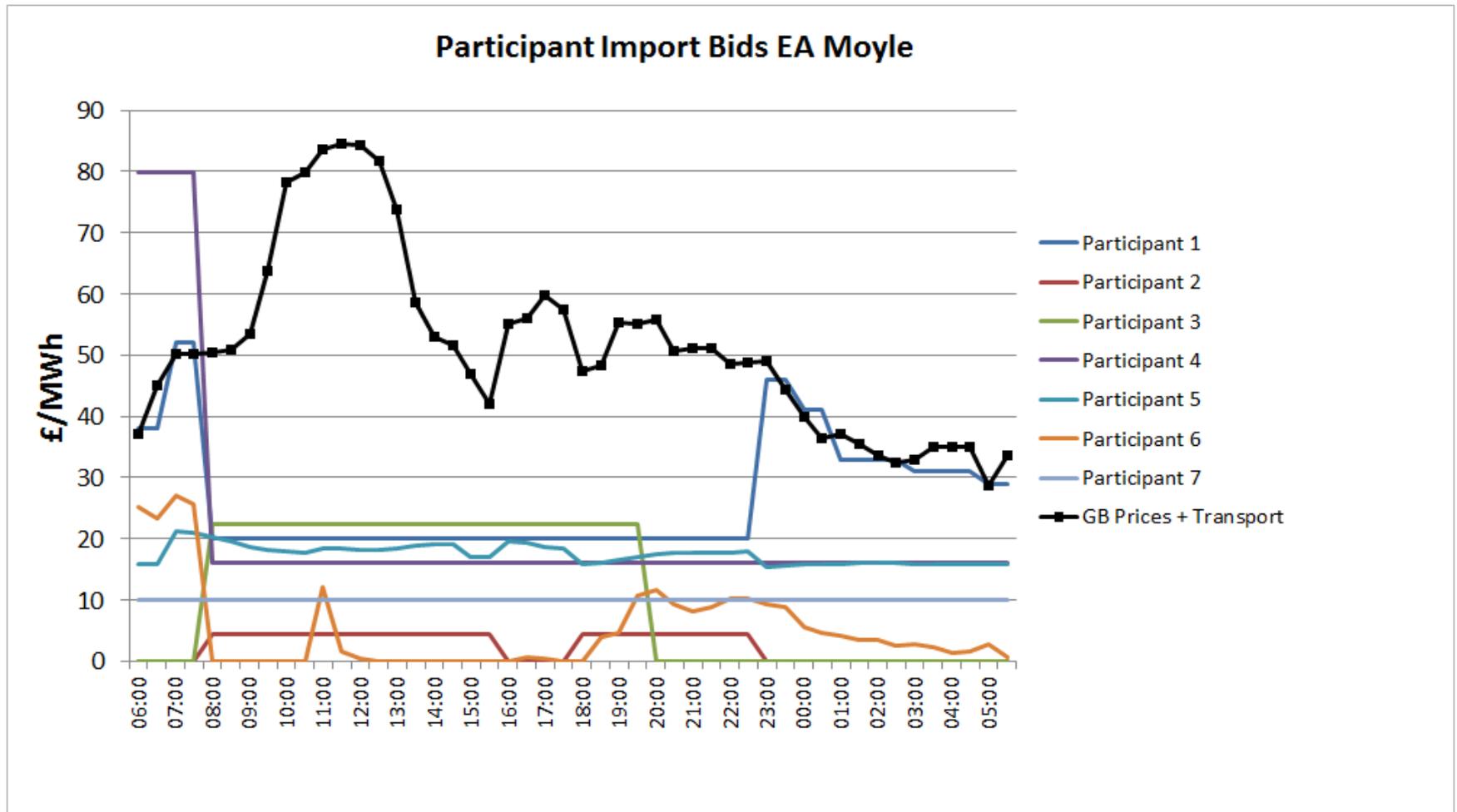
Proposed Mods

- ▶ ElectroRoute disagree with the removal of the Make-Whole Payments for IC units
- ▶ Do agree with the RA's that netted IC volumes (simultaneous import and export by a single participant) should not place a cost on the MWP mechanism
- ▶ However, **both** RA's modifications practically represent the removal of make whole payments for IC Units
 - *Mod_10_14 explicitly states "Participants shall not receive Make Whole Payments in respect of their Interconnector Units."*
 - *Mod_09_14 suggests an amendment to the MWP*

Mod_09_14 – Amended MWP

- ▶ Mod effectively applies a single MWP calculation across all 3 gates/units for an interconnector participant
- ▶ Intuitively sounds reasonable but in practice this is flawed
- ▶ Since the beginning of SEM, IC units have “bid to flow” rather than “bid at cost” for import trades

Bid to Flow – Example



MWVP payment miscalculation

- ▶ This “bid to flow” practice hugely overstates the level of infra-marginal rent in the eyes of the MWVP calculation
- ▶ Due to this miscalculated infra-marginal rent over the Billing Week on import trades the make-whole payment mechanism effectively malfunctions and doesn't compensate export trades for out of the money accepted bids
- ▶ Therefore, historically, export trades were isolated from import trades by scheduling them in a separate ex-ante gate. This approach allowed valid MWVP calculations to be performed
- ▶ **By combining all gates into one MWVP calculation, Mod_09_14 effectively contaminates the MWVP payment calculation with wildly incorrect values. This has the practical effect of removing the MWVP mechanism altogether for IC units**
- ▶ Remember, explicit or consequential removal of make whole payments places huge risks on export trading in general. This will mean that valid and rational trade in that direction will simply stop or be severely hampered

Netting Issue

- ▶ Don't think the RA's mods are achieving the desired effect. Suggested 2 modifications to the address the issue
 1. Remove the periods of simultaneous import and export within a participant's account from the MWP calculations entirely (Mod_12_14). View this as the quickest fix.
 2. Remove the (sometimes) disjointed price signal that gives rise to the simultaneous import and export by moving all IC units to a pay (be paid) as bid principle (Mod_11_14). Could be quickly implemented but would have more far reaching ramifications

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Preferred Option

2. Remove the (sometimes) disjointed price signal that gives rise to the simultaneous import and export by moving all IC units to a pay (be paid) as bid principle (Mod_11_14). Could be quickly implemented but would have more far reaching ramifications

Preferred Option Mod_12_14

- ▶ This approach simply forces an interconnector participant to arrange trades by deciding what trading periods of the day they wish to exclusively import or exclusively export on an interconnector
- ▶ Participant uses different ex-ante gates to schedule import and exports
- ▶ The MWP mechanism would no longer be exposed to payments where import and export volumes are scheduled simultaneously in the same trading period
- ▶ Addition to the TSC code to identify half hours where a participant is both importing and exporting. These periods would be flagged by a new variable (MWEluh - Make Whole Eligibility Indicator) and removed from the MWP calculator

Preferred Option Mod_12_14

- ▶ If a quicker resolution to the participant netting issue is the key motivation suggest Mod_12_14 provides a valid solution
- ▶ If a more fundamental review or redesign of the import / export space is more appropriate then fundamental topics such as the dispatch principles, pricing, bidding practice etc. would need to be comprehensively revisited
 - In this scenario ElectroRoute believe that the Pay as Bid / Paid as Bid for Interconnector Units (Mod_11_14) provides a valid solution

Modification	Admin Impact of Change	Commercial Impact of Change	Fulfil Code Objectives ?	Compliance International Frameworks ?
RA's Mod_09_14 Amendment to Make Whole Payments for Interconnector Units	Low – Medium? – Some systems and code changes	High – New risks will terminate or severely hamper export trading	No – in direct contradiction to Code Objective 1.3(6) - To ensure no undue discrimination between persons who are parties to the Code	
RA's Mod_10_14 (Removal of) Make Whole Payments for Interconnector Units	Low – Medium? – Some systems and code changes	High – New risks will terminate or severely hamper export trading	No – in direct contradiction to Code Objective 1.3(6) - To ensure no undue discrimination between persons who are parties to the Code	
ElectroRoute's Mod_11_14 Pay-As-Bid / Paid-As-Bid for Interconnector Units	Low – Medium? – Some systems and code changes	Medium – High – New payment concept will be fundamentally different and will change clearing prices for IC capacity	Neutral	
ElectroRoute's Mod_12_14 Amendment to Make Whole Mechanism to remove Settlement Periods of simultaneous import and export flows	Low – Medium? – Some systems and code changes	Low – will remove MWP mechanism exposure to netted volume. Each IC participant will simply select which periods in the day to import OR export	Neutral	

Summary

- ▶ Believe the issues around export / import dynamics require focus as activity levels will scale significantly over next 3 years
- ▶ Agree with addressing the issue of netted import/export volumes within a participant's account
- ▶ Disagree strongly with any attempts to remove constraint/MWP protection from one class of participant
- ▶ In addition to being bad design, hampering trade for a particular unit type or cross-border direction is in direct contradiction to Code Objectives as well as International Frameworks
- ▶ ElectroRoute has suggested a simple process whereby a participant's netting periods are removed from the existing MWP calculations Mod12_14
- ▶ Best solution may depend on the appetite for a full fundamental review of market design in this area versus a simple fix to current design