I-SEM Energy Trading Arrangements Detailed Design - Building Blocks Consultation Paper

Moyle Interconnector Ltd response

March 2015

We welcome the progress of the regulatory authorities towards delivering the future electricity market on the island of Ireland by publishing this building blocks paper. This response focuses solely on the one area addressed by the paper that directly concerns interconnector trading – treatment of losses. While we have not commented on other areas of the paper we are generally supportive of the regulatory authorities' approach to draw on existing SEM solutions and experience in determining policy for I-SEM, where appropriate. We look forward to engaging in the I-SEM detailed design phase as it develops.

Treatment of transmission losses

As a general point on the treatment of transmission losses, we support the regulatory authorities approach in terms of identifying solutions to make the current policy work for I-SEM. The losses policy has been considered at length relatively recently and there is no valid reason for the issue to be re-opened now. The target model and I-SEM design do not necessitate any change to losses policy and the rationale for previous decisions (whether one agrees with it or not) has the same level of validity regardless of changes to the market design. Furthermore, and as noted in the paper and at Rules Liaison Group meetings, the task of delivering I-SEM with both new energy trading arrangements and a capacity remuneration mechanism is already challenging enough without introducing another workstream looking at the losses policy. At this point in time such a workstream is unlikely to receive the attention it requires to deliver robust decisions that are not open to challenge.

Treatment of interconnector losses

The key relevant issue for Moyle in the building blocks paper is around the treatment of interconnector losses. Notwithstanding that we broadly agree with the assessment of this issue as presented in the paper, it is our opinion that utilisation of a single loss factor for both interconnectors would represent a significant change in losses policy. This is inconsistent with the general approach taken for transmission losses and it is difficult to see why such a change has been considered, particularly when it has been presented at the Rules Liaison Group that different loss factors can be facilitated by Euphemia.

Single loss factor will cause inefficient interconnector scheduling

As stated above, we do agree with the concluding proposal reached around utilisation of multiple loss factors and wish to expand on the arguments made in favour of this approach. The table below is reproduced from the paper with the addition of highlighting the bands within which the interconnectors would be scheduled uneconomically, as opposed to simply highlighting the bands within which flows would be scheduled:

		I-SEM GB price differential			
		<2%	2%-4.11%[1]	4.11%-6%	>6%
Aggregate loss factor	Moyle flow		**Uneconomic**		
	EWIC flow			**Uneconomic**	
Two loss factors	Moyle flow				
	EWIC flow				

The key drawback of the aggregate loss factor approach is that it would unnecessarily increase the deadband within which interconnectors are not utilised i.e. where the market spread falls between 2% and 4.11% Moyle would not be scheduled which is clearly undesirable given that the reality is that flows should be scheduled in this space. With the goal of market coupling being price convergence, such an approach would mean that I-SEM and GB prices could not converge under market coupling as closely as they should – this would not represent successful delivery of the target model.

Additionally, scheduling flows on EWIC when the market spread is less than 6% would be uneconomic as the market spread does not warrant such a flow – in reality these flows would be loss making with the cost of these inefficient flows being borne by the end consumer. Considering the opposite argument, it may be considered correct that the total losses on the interconnectors would be 4.11% when both are flowing at full capacity. However this will only be the case when the market spread is greater than 4.11% and both interconnectors are fully operational and running at full load - obviously this will not always be the case. In addition, NI consumers would indirectly be bearing the costs of EWIC losses in this situation – this point is explained further below.

Single loss factor will vary by direction and at different points in time

An additional, but probably solvable, issue with having a single loss factor is that it would need to be capable of regularly being updated in the market systems e.g. if the available interconnector capacity were to change, the weighted average loss factor would be different than if both interconnectors were fully available. This issue also would arise due to Moyle's available capacity varying seasonally due to its connection agreements with the TSOs at either end. This also means that Moyle's maximum capacity is not generally the same in the GB-NI and NI-GB directions which means that a weighted average loss factor would differ according to the flow direction. All these factors mean that the only apparent benefit of a single loss factor (simplicity) would not ensue and different types of complexity would be introduced.

Clarification of losses impact on FTR holders

Section 2.3.2 ends with the statement:

*"It is also worth noting that Financial Transmission Rights (FTRs) hedge against congestion only and not losses and therefore **congestion rent payable to FTR holders will not include losses**. i.e. if there is a price difference between I-SEM and GB, but no flow on EWIC because of the losses deadband, then no payment would be made to the holder of an FTR."*

[1] Note this is different than the aggregate loss factor quoted in the paper. This is because Moyle is expected to be at full capacity by the time of I-SEM go-live so aggregate loss factor has been recalculated using 450MW as the Moyle capacity.

While the intent of this paragraph seems to be correct there is potential for confusion in the bold text. A succinct way of stating this is that FTR holders are entitled to receive the loss-adjusted market spread only in case the price difference is positive in the direction of the FTR[2]. The table below demonstrates this point, assuming a loss factor of 5% for illustrative purposes

GB price	ISEM price	Market spread	Loss adjusted market spread
50	40	10	7.5
50	42	8	5.5
50	44	6	3.5
50	46	4	1.5
50	48	2	0
50	50	0	0

The column on the far right represents the payout that would be due to FTR holders. On the last two rows, while there is still a price difference between the markets, it is not sufficient to cover the cost of losses so the loss adjusted market spread and payout is zero.

NI customers penalised by single loss factor

This is linked to the point above about NI customers bearing additional cost if a single loss adjustment factor was used. With separate loss factors, since Moyle's losses are less than EWICs, there will be times where Moyle's loss adjusted market spread is positive and EWIC's is zero (where the market spread is in the 2-6% range). At these times only holders of Moyle FTRs will be entitled to a payout which will make Moyle FTRs more valuable. If a single loss adjustment factor was used the value of Moyle FTRs would therefore reduce and the value of EWIC FTRs would increase as FTR payouts would be the same for both.

- This would mean Moyle auction receipts would be expected to reduce.
- NI consumers directly underwrite Moyle.
- Any reduction in Moyle's auction receipts would therefore increase the quantum of its costs to be recovered through NI consumer tariffs.
- The converse would apply for EWIC so this policy would transfer benefits from NI consumers to ROI consumers.

Conclusion

The SEM committee's proposal that loss factors for each interconnector should be represented separately in the market systems, as opposed to employing an aggregate weighted loss factor, is the correct approach. An aggregate loss factor would:

- Result in inefficient scheduling of the interconnectors
- Introduce unintended complexity
- Skew the valuation of FTRs
- Have an adverse effect of Northern Ireland consumers

[2] This is paraphrased from the draft harmonised "Allocation Rules for Forward Capacity Allocation" produced by ENTSOE and expected to apply for FTR allocations in I-SEM