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Submission to
I-SEM Rules Liaison Group (RLG)
on
Energy Trading Arrangements Detailed
Design

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"Wind does not cause curtailment any more than power stations cause constraint."

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Introduction

This submission sets out the main concerns of the Irish Wind Farmers Association (IWFA) on the I-SEM Energy Trading Arrangements Detailed Design, following the three productive Rules Liaison Group meetings in October & November this year.

IWFA's overall view is one of continued concern about the High Level Design of I-SEM (HLD), and the need to mitigate the most serious issues faced by wind, and specifically smaller wind projects, in the proposed I-SEM. The main concerns relating to the ETA remain:

- a detailed design for the imbalance settlement pricing mechanism so that it resembles as much as possible the existing SEM pool arrangements, in order that wind can take the risk of entering the ex-ante markets, giving as clear as possible a signal for the correct operation of the interconnectors at the Day Ahead stage;
- the enormous delay in rolling out infrastructure build and DS3, and the probable failure of the RoCoF project, all of which are grid development projects at a national level, leading to a huge potential increase in curtailment, which also serves to highlight the fact that grid inadequacies are responsible for curtailment, not wind itself;
- an apparent intention by SEMC to nevertheless proceed with the discriminatory removal of compensation for curtailment, even while all plant are paid compensation for constraints caused by grid inadequacy;
- the complete failure by the authorities on the island to implement the legal obligation to specify the transparent and non-discriminatory criteria for 'guaranteeing the transmission' of renewables, never mind actually starting to implement it;
- the emergence of a problem we are calling 'double curtailment', whereby wind that is scheduled to be either curtailed or exported due to technical grid limits, could be kept in the jurisdiction via sale in the anonymous Intra Day Market, and therefore curtailed again, raising the prospect of there being no solution to curtailment;
- the ex-post settlement of REFIT must be on the basis of total actual funds received by renewable energy projects, even if the ex-ante is based on the DAM price;
- an Aggregator of last resort that gives greater value in reducing risks than it adds in cost;
- a general concern about the multiple and potentially conflicting roles of Eirgrid in I-SEM;
- the effective maintenance of 'Intermediaries', 'net negative demand' and 'supplier lite', and a raised de minimis level of 15-20MW;
- all of the above to enable out-of-support projects to remain in operation, otherwise they will shut down and re-power, which would also demonstrate the complete fallacy of the claim that renewable projects should in due course operate in such an apparently 'open market'.

RLG1

IWFA has the following issues to raise:

1. IWFA shares with the rest of the industry a concern about the unnecessarily complex treatment of losses, both TLAF and DLAF, combined with the almost total ineffectiveness of the locational signal they are supposed to provide (in particular for wind, which is already 'located'), since they vary over time. IWFA also suggests a reopening of this decision in due course, leading to a much simpler harmonised/smeared model.

2. Priority of dispatch (PoD) for renewables must mean that wind can bid its output into the ex-ante markets, even if part of that is non-firm, since the PoD rule makes no distinction. The similar legal requirement to guarantee the transmission of renewables puts a question mark over the treatment of non-firm renewables, and indeed, both

constraint and curtailment. According to the Directive, renewables shall only be restricted for safety and reliability reasons. Clearly that assessment must be made live by the TSO, and should not be based on some predicted effect, crudely represented by 'non-firm access'. The Directive also requires the relevant authority (the regulators) to specify the transparent and non-discriminatory criteria for 'guaranteeing the transmission' of renewables, which hasn't been done, in breach of the Directive. Since curtailment arises from grid inadequacy and not wind itself, the apparent intention of SEMC to proceed with the removal of compensation for curtailment, even while all plants are paid compensation for constraints caused by grid inadequacy, amounts to a clear discrimination, and will not be allowed to stand.

RLG2

Constraint and Curtailment

Following lengthy discussion on both constraint and curtailment in this seminar, IWFA remains firmly of the view that:

- it is very difficult at the margin to distinguish constraint and curtailment, so that the distinctions in the definitions as between local and national constraints seem somewhat arbitrary, confusing and rather suspect,
- there is in any case no need to distinguish, since both arise from grid inadequacy (and not from renewable generation of any kind, although from inflexible conventional plant to some extent) and should therefore be treated in exactly the same manner,
- the TSOs and DSOs are legally obliged to guarantee the transmission of renewables, whether the issue is local or national, subject only to the safety and reliability of the network, something to be assessed live by the TSO, not subject to crude predictions, dubious definitions and guidance using blunt instruments,
- as regards compensation payments for both (which has until recently been the same in SEM), the compensation for curtailment must not be removed, and if that compensation is maintained, then the need for this complicating distinction disappears and makes the operation of I-SEM much easier and simpler,
- as stated by many participants in this workshop (and by IWFA/MnaG over many years now), maintaining compensation for curtailment provides a necessary economic signal to the TSO and the regulators for mitigation of curtailment, through grid development (as also required by the Directive), whereas removing that signal would lead to a market failure and a continuation of the economic waste associated with curtailing effectively free electricity (when the job of regulators is to protect consumers!), and,
- the design of I-SEM needs to anticipate a reopening of this mistaken decision by the SEMC in the very near future.

A discussion during the seminar raised the following scenario: where certain plants are required say in Dublin, Cork, etc to keep the system stable, and to do so, either:

- an 'in merit' fossil plant in say the midlands is turned off, and that is a constraint, or,
- a series of windfarms are turned off, but that is curtailment.

This makes a further mockery of the distinction.

A further discussion gave rise to the concept of (what we have termed) 'double curtailment', as discussed in the intro, which raises very serious doubts about the whole idea of mitigating curtailment within this HLD. A related issue is that the implementation of the 50% (or even 75%) SNSP rule will in any case prevent the use of either the

interconnectors or storage to enable the otherwise curtailed wind to be generated (due to a descending spiral effect²), unless that rule is made 100% for that particular output.

A final anomaly arose on curtailment, whereby it was suggested that renewable plant electing to bid a price and being scheduled to run would have its volume respected and NOT be curtailed, which in the end made a mockery of the whole curtailment argument, since it is then not about wind and non-synchronous plant per se, but about bidding vs. not bidding.

Constraints

IWFA's understanding of the views presented by the TSOs on constraints are set out in the table below (and are open to correction).

	'In-merit'		'Out of merit'	
	principle	proposal	principle	proposal
Energy actions, up or down	balancing price	balancing price	balancing price	balancing price
Non-energy action				
- up	at least offer price for extra qty.	higher of offer or balancing price	higher of offer or balancing price	offer price
- down	pay back offer price for qty. reduced, ie. keep infra-marginal rent	lower of dec/balancing price	(not running)	-

For wind a few issues arise:

- how will wind's priority of dispatch status be given effect?
- if wind doesn't enter one of the ex-ante markets (DAM or IDM), when it comes to constraints, there will be no indication of what it might have done other than its nomination (presumably based on its availability);
- is wind going to bid incs and decs and if so what are these to be based on?
- there is some risk of negative prices in the imbalance market, which is something IWFA would be gravely concerned about, since it makes no sense to run a plant with no fuel cost when prices are negative, in particular where a project is out of support.

Priority of Dispatch

It is to be very much welcomed that the SEMC recognises the importance of priority of dispatch (PoD), that it cannot be qualified by economic criteria (as accepted in the Tie-breaks process), and that the intention is to fully implement this EU legal requirement in I-SEM. It is therefore quite unfortunate that the two parallel legal requirements (guaranteed transmission and priority/guaranteed access) are never even mentioned by SEMC.

² eg: 'curtailing' say 100MW of wind and exporting (or storing) it would only add 100MW to export (or demand), thus causing a problem with the fraction used to assess the SNSP limit, thereby requiring a further adjustment downwards, until all of the so-called 'excess wind' would have to be curtailed altogether.

It was indicated that priority of dispatch plant entering the DAM in I-SEM would have to be price takers, as in SEM, which is fair enough (as renewables can't both set the price and have priority), but that the deemed price for them is expected to be PFloor, which is -€500/MWhr in EUPHEMIA. Were it to occur, such a price would dramatically increase the PSO for supported projects and cause severe economic damage to non-supported projects, and cannot be implemented. Wind has to date worked with a deemed price of approximately zero, and there will need to be consideration of different deemed bids for different technologies. If however that PFloor must be maintained, it will act as a disincentive for renewables to enter the DAM, and they would then tend to prefer the IDM, where presumably that should not be an issue, but at that point, bidding may force renewables to lose their PoD status. These issues remain very problematic, especially where a change of PoD status would not be easily and quickly achieved. As a result, there was a general sense that the use of IT should permit a very quick (more or less instantaneous) change of PoD status, rather than the current 30 day process.

The TSO's needs for system services would lead to impositions on the more suitable plant in advance of the DAM, so that the capacity is maintained for TSO use, creating a further set of complications. If wind is to be allowed to provide services (and receive capacity payments of some sort?), then the implementation of this idea for it is quite unclear.

IWFA does not agree that, where a wind plant is switched on in the Balancing Market in place of a conventional plant, that the only revenue paid to it would be the same as that lost by the plant dispatched off.

IWFA reminds the regulators again that PoD arises at two levels - in the EU directive for renewables (and HECHP), and under national law for other conventional plant such as peat and CER 2005. Since EU law has primacy over national law, the PoD of renewables (and HECHP) is ahead of the PoD of the rest, and that must be implemented where relevant in I-SEM.

IWFA would like to know from the regulators how the interaction of the PoD of renewables and the rule that interconnectors may only be dispatched down in an emergency is going to be resolved under the Target Model in I-SEM, as the current arrangement is against Ireland's interests.

De Minimis

If 10MW works for SEM, then a higher level should be appropriate for projects in this much more complex market. As to concerns about raising that to 20MW, and removing say 2000MW of plant from the market, that is not correct. That plant would instead appear in the market as negative demand bid in by the suppliers they operate through. The effect on the DAM price would be more or less the same, helping to send the right signals to EUPHEMIA for dispatching the interconnectors. Indeed, it is MORE likely that such projects managed through suppliers would be so operated, since the large suppliers have the capacity, skills and hedging arrangements to cope. While there may be less generation on one side and less demand on the other, which would appear to reduce liquidity, the market should still function quite well. And it would make everybody's life easier.

To be useful to the projects in question, this limit needs to be unit based, not portfolio based.

'Net negative demand'

Maintaining the 'net negative demand' option, which enables 'Supplier lite', is essential for some legacy projects in the SEM. But it also provides a floor price to the large suppliers as regards PPAs, even if in the end very few projects actually opt to use it in what will be a more complex market.

RLG3

The main issues of relevance to wind are:

1. That smaller projects require a continuation of a single registration process, adapted to the new market, and this may even be a good idea for all registrations in I-SEM.
2. Payments need to be a lot quicker, more in line with European markets, and collateralisation needs to be simplified and reduced in I-SEM as it is excessive in SEM (especially for non-utility projects), possibly by using some form of insurance.
3. IWFA believes that the best route to a transparent and efficient market and avoidance of gaming, is the maximum disclosure of market data and information, whether live (especially outages) or ex-post for bidding information. The pre-live information should include the TSO wind forecasts and their intentions as regards counter-trading of wind.

Conclusions

The discussions at the recent RLG meetings, in particular RLG2, highlighted the fact that the Target Model is unsuitable for renewables and wind in particular, due to its variability. Drilling into the issues has highlighted the totally confused, perverse, counterproductive and discriminatory approach to curtailment, the open breaches of the Renewables Directive, the non-curtailment of bid wind, and the ultimate irony of 'double curtailment'. Where the Target Model causes Ireland difficulties in respecting the Renewables Directive, then CER needs to insist on tailoring its implementation to suit Ireland's purposes and explain that to the European Commission. To slavishly implement all of the provisions to the point of absurdity is to work against the energy security of this country and the consumers the regulators purport to serve and protect.

Instead, the RAs need to allow for the fact that the island will have large and increasing quantities of unpredictable wind (as well as demand) on our system, and that trying to plan everything 24 hours ahead is a nonsense (which shows that the Target Model is at the root of the problem). Instead, there is a need for one market where everyone participates based on what they actually do and where the price reflects the real value of energy - a pool imbalance market, rather than relying solely on the DAM, IDM, etc. And what is that? - Option 4 of course! The SEMC has decided to have Option 3, so what the RAs need to do is to make Option 3 look a lot more like Option 4.

Given the absurdity of some of the discussion on the detail design to date, the IWFA cannot see how the market as currently proposed will be operational, ever, and if the SEMC now decides to radically change it, there is no now way we will even make 2017.