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Principles of Dispatch and the Design of the Market Schedule in SEM

Single Electricity Market, SEM-09-073, 8th July 2009

SUBMISSION

Legal issues

The Regulatory Authorities (RAs) began a discussion on wind in the SEM in early 2008[1], and received a variety of strongly worded responses to their proposals, in particular as regards the undermining of priority of dispatch for renewables. It was then noticed that the SEM legislation, at least as adopted in the Republic, had removed the legal requirement for priority of dispatch, despite EU legislation. The RAs were advised in no uncertain terms to respect those legal obligations, and to avoid proposals that suggested non-dispatch of renewables for cost reasons.

Nevertheless, this caution has been ignored. Although the RAs have now widened the discussion, they have persisted with proposals to undermine renewable dispatch. This despite the new Renewables Directive, which puts the question beyond doubt. On that basis, the three wind associations have insisted that the current document be withdrawn. This has been refused by the SEM Committee, which has been legally advised that its proposals are within EU law.

Legal advice to the wind industry, from two different experts[2], indicates unequivocally otherwise, and this has more or less been confirmed by initial contact with Government and the European Commission. The point at which industry stakeholders will actually seek legal means to put a stop to this tendency is still under discussion. And any attempt to undermine priority of dispatch based on cost in advance of the transposition of the new Directive (by the 5 Dec 2010 deadline) will be firmly resisted. Legal precedent at the ECJ is very strong in this regard.

Issues

[1] SEM-08-002, 11th February 2008
[2] Philip Lee Solicitors and Eversheds O'Donnell Sweeney

The discussion continues to be characterised by a shopping list of issues, of varying degrees of seriousness and urgency. It appears that this mixing of issues has led the authorities to try to resolve medium-term issues with short-term measures, and visa versa.

More seriously, much of the framework of the discussion is simply absent. The RAs appear to believe that economic dispatch is primary, and everything else is secondary. If that is genuinely their view, then they are bringing their own competence into question. They must operate within both Government policy and the legal framework, both of which limit their courses of action.

The discussion is focussed on generation, and yet that is only one side of the SEM, since demand also has to be handled.

These considerations alone call for withdrawal of the document.

A non-comprehensive list of concerns might be:

- inadequate incentivization of mid-merit conventional generation, and alleged over-compensation of wind, via capacity payments;

- lack of transmission capacity;

- increasing and unquantified non-firm access, cost inefficiencies and distorted incentivization arising from that lack of transmission capacity;

- a need to plan for a large penetration of variable[3] generation, primarily wind;

- rules to govern compensation for non-dispatch or curtailment of generators with priority of dispatch and a transmission guarantee, in particular during so-called 'excessive generation events';

- rules to govern dispatch of priority/non-priority, price taking/price making and firm/non-firm generators;

- a need for fairer and more predictable market access rules;

- a notional concern at the difference between the Market Schedule and actual dispatch.

In point of fact, wind in most cases is under-rewarded today, even with AER and REFIT support, and much of its development is now under threat. And the current design of the SEM will tend to drop the 'wind pool price', worsening that situation, and/or raising the PSO.

[3] renewables are 'variable', not 'intermittent', hence the term 'variable price taker'

If instead we view these concerns through the correct lense, ie: Government policy and the legal framework, they might be re-written in the following manner:

- inadequate incentivization of renewables and also plant suitable to complement renewables going forward;

- a growing tendency to misdirect SEM cost inefficiencies, leading to an inadequate incentivization of the Regulatory Authorities to accelerate transmission development (in its wider definition to include interconnection and where necessary storage);

- that would include non-firm costs on generators arsing from inadequate grid development;

- negative approach to planning for a very large penetration of renewables, including increased electricity demand from vehicles and exports (with the notable exception of the All-island/Grid25 studies);

- a complete absence of guaranteed access for renewables (and the opposite of priority), increasing undermining of priority of dispatch and non-respect of the renewable transmission guarantee;

Because in reality the issues that might arise from a large penetration of wind are some years away, these concerns break out into short and medium-term issues.

Short term

It is correct for the RAs to be addressing the inadequate incentivization of plant required to complement the expected future growth of variable generation. Given the lead times and in particular plant lives, this incentivization needs to be addressed now. However, if that is done at the expense of wind for example, as evident from the current consultation, then there is no point, since the wind won't be there to be complemented. Thus the current approach smacks of panic.

The other short-term issues relate to fair treatment of renewable generation, especially now that the new Directive is adopted, and will be transposed into Irish law. They will be entitled to either guaranteed or priority access, subject only to security issues (and not cost). That is to say the current 'Gate' system, which delays renewable connections, will have to be removed rather soon, and replaced by either a guaranteed (and short) connection period or a process that connects renewables first. All renewables will also be entitled to dispatch and transmission, with the possible exception in the short term of non-firm (for contractual reasons). However, the quantities involved shouldn't pose a technical concern for some years. In all cases the excess cost arising from these rules in the short-term will serve their proper purpose - to incentivize the necessary infrastructure to accommodate renewables (and incentivize appropriate back-up). At the end of the day, that infrastructure is supposed to be transparent to the market, and shouldn't act as a constraint on it.

We might add that we see no need for renewables to move away from 'price taking'. 'Price making' cannot be compatible with priority of dispatch in the current market, given the potential for 'gouging', so a move to 'price making' in this market must entail a surrender of priority of dispatch.

Medium term

Gradually, the amount of renewable generation on the system will start to pass beyond national demand. Nevertheless, all renewables will continue to be entitled to dispatch and transmission, regardless of demand nationally, so that adequate grid, on and offshore (and storage if necessary) will have to be provided promptly to avoid so-called 'excess generation events'. Non-firm access will have to be phased out, as it does not respect the intent of the Directive.

However, if the current market design is maintained, there will be a growing differential between the 'wind pool price' and the average pool price, which will provide perverse signals to generators - negative signals to the most valuable generation on the system (in economic, security and environmental terms), namely renewables, and positive signals to fossil dependant generation, with all of its negative consequences. Clearly the authorities need to focus on fixing that problem in some tears time, without undermining confidence in the current market.

Thus, the short and medium term issues are being mixed up by the RAs, and seemingly used by them to target the growth in renewables, so as to try to postpone or avoid the issues they foresee. This is the completely wrong approach, and has echoes of the moratorium.

Concerns about the mismatch between the Market Schedule and dispatch are misplaced. That difference reflects the lack of provision of adequate infrastructure, since if it were in place these two could match at all times (with the exception of unplanned outages and variable generator forecasting errors). Therefore the mismatch is the most important signal of that infrastructure lack, and the costs that arise from that deficiency serve to incentivize and accelerate the necessary development.

Priority of dispatch should mean that all renewables enter the Market Schedule, and whenever they are not actually dispatched, they would receive adequate compensation[4]. There is no technical reason for not including all renewables in the Market Schedule, as that in itself poses no security risk. It does impose a cost, but non-dispatch is not allowed on that basis. We conclude that priority of dispatch extends to the Market Schedule

Market participants and the RAs have been speaking about 'incentivizing' the Grid to develop the network so as to transmit our power and avoid cost inefficiencies. However, the way the argument is developing, the

[4] generators with non-firm contracts already signed might be an exception for now, where the dispatch quantity could be used, not available capacity

costs will fall on renewables, though they cannot fix the problem, so it won't be fixed. Cost inefficiency in the market carried by the consumer is a more useful signal of the problem. It is for the RAs to ensure that the cost to the consumer is minimized (and in truth, no-one else!). It is the RAs who approve the expenditure necessary for the development of the grid. So they must make the trade-offs between cost inefficiencies and grid development costs. They won't do so if the costs do not appear in the market, and rather are palmed off on others, such as renewables. The inefficiencies serve to incentivize the real bodies ultimately responsible for grid development.

Consideration of supports

Some stakeholders, including the RAs in their document, are referring to 'subsidy', which suggests a cost to the State, and we need to be very clear that this is not the case with AER or REFIT in the Republic. We are speaking about Government regulated 'supports', which emanate from the consumer, not the State.

The proposals include consideration as to whether supported projects should, or could, bid 'net of support' (to use the preferred term here). This entails two problems.

The first has already been indentified - why should projects with a right to priority of dispatch volunteer to give that up (in this market anyway) and become 'price makers'?

Secondly, such bids would seem to be the Short Run Marginal Cost (SMRC, effectively zero for wind) minus the 'support'. This presumes advance knowledge of the actual level of support, which under AER and REFIT is unknown, since it in turn depends on the market. If done, it may also lead to generation during negative pricing. Suffice to say for now that this might be for the major utilities, but not for the bulk of renewable energy, and would seem to be a distraction from the main issues, once again driven by the purist economic thinking that underlies the document, to a fault.

A further approach that is being considered by industry participants is the use of renewable available generation rather than actual generation in calculating payment. The additional costs that arise due to non-dispatch (both in the pool and the supports) would provide grid development incentivization; also project cash flow might improve. However, this approach may also tend towards a surrender of priority of dispatch, which should be resisted. If this approach could be arranged such that renewables do not surrender priority of dispatch and get dispatched off for cost reasons, it could be worth considering.

However, a fresh debate is called for, once the RAs have revised their proposals, having set them within the correct legal and policy framework. At that stage, possible solutions could be considered in more detail.

Conclusions

The RAs' document puts forward options that would breach the new Renewables Directive, which is an odd approach for state mandated Regulatory Authorities. It must therefore be withdrawn. Any attempt to introduce non-dispatch for renewables base on cost, in breach of the Directive, will be firmly resisted by the industry, and probably Government and the EU as well.

Instead, the RAs need to engage in a positive debate within the bounds of the legal and policy framework. That debate can examine what incentives to introduce now to attract the right kind of back-up plant in the market. It should also define the rules to reflect the full legal rights of renewables, notably as regards access, dispatch and transmission, and also the policy aims of Government, while also not undermining supports. This can be done without excessive change, which would otherwise undermine the new market, adding further regulatory risk to that already created by this unfortunate discussion.

A much more fundamental market revision will be required in a number of years to facilitate and reward the most valuable form of generation on the system, namely renewables. That debate can suggest a minimum period (of several years) before any change is made, to restore regulatory certainty.

Thomas Cooke, Chairman

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