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25 th September 2009

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Ref: SEM/09/073 Single Electricity Market Principles of Dispatch and the Design of the Market Schedule in the Trading & Settlement Code

Dear Sir:

I attach ESB International (ESBI) response to the above consultation

Kind regards

Ramón Cidon
Market Strategy Manager
Independent Generation
ESB International

ESBI Response to: "Single Electricity Market Principles of Dispatch and the Design of the Market Schedule in the Trading & Settlement Code"

SEM/09/073

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1 Introduction

ESBI appreciates the opportunity to comment on this consultation paper and has no objection to all or part of it being published by the Regulatory Authorities (RAs).

ESBI's Irish electricity business includes commercial and industrial retail businesses in both jurisdictions and SEM thermal and wind generation. Our businesses in Britain and Spain also comprise thermal and wind plants in operation and planned.

Like some other SEM participants, ESBI's experience of wind generation displacing thermal generation is from both perspectives. We are also involved in one of the markets where there has been the most rapid growth of wind generation anywhere (Spain).

We are very concerned about the current Regulatory Authorities' proposal. The consultation paper proposes some different options that would require very important changes in the market rules. It introduces uncertainty and increases the perception of SEM regulatory risk.

We have carefully reviewed the proposals contained in the Consultation Paper but we are unable to analyse the proposals and therefore cannot indicate a preference for any of the options set out in the RAs' paper.

We have some general comments and some high level points to make about emerging market issues in the Irish energy sector and the SEM regulatory, consultation and design process. These remarks are made in the context of ESBI's electricity business and our experience of the development of the SEM to date.

1.1 The SEM Development Process

The high level design of the SEM is based on unconstrained scheduling. This was required to unite two separate systems and ESBI understood it to be a fundamental principle of the design agreed between all of the stakeholders at the time. It then took more than two years of consultation to arrive at the current detailed design – the capacity payment mechanism, the bidding code of practice, the SMP uplift, the MMU, harmonised ancillary services, TUoS and TLAF, etc. These elements complement each other and, taken together, were intended to remunerate generation and to provide incentives for future investment when required.

The phased consultation process adopted until this paper was published used to involve the RAs and participants discussing and agreeing issues, with the RAs providing quantitative analysis if required, and the parties agreeing the criteria for a solution to the issue being discussed. This was followed by discussion and agreement of alternative approaches to resolve the issues and criteria, with the RAs providing more detailed quantitative analysis when required. The published decisions were based on the criteria, the consultation responses and the analysis and market participants were in general satisfied with the process even when they did not agree entirely with individual decisions.

The SEM has been in place for less than two years and participants and RAs are still learning how it works but there remain big gaps in our understanding, particularly in generators' understanding of transmission and system operation issues.

1.2 Longer-term Market Issues

ESBI thinks that there may be both SEM and more global issues arising in the 2010 to 2015 period and beyond which we think should be taken into account in planning for the evolution of the SEM and the All-Island Project.

Ireland is facing an important economic down-turn. The recession in both NI and ROI continues and it is having an important impact on demand. The TSOs have estimated a reduction in the demand of 4% in 2009 and 1% in 2010.

The RoI renewable target is 40% of electricity consumption by 2020 (6,700 renewable MW) and this is the target for Gate 2 and 3 processes. This means a five-fold increase in renewable capacity. In NI the Government has also establish an ambitious objective of 40% of electricity consumption by 2020.

An important amount of new and more efficient thermal power generators are going to be developed in the following years. The CER has estimated that in order to maintain Ireland's security of supply, it will be necessary to connect other 3.400 MW of conventional power plants before 2020.

We consider that these important issues will require several workgroups with all the stakeholders involved (RAs, TSOs and generators) to discuss solutions to the expected increase in transmission constraints, to establish the renewable technical characteristics, to revise SEM bidding structure and the current merit order, to define the renewable incentive system (REFIT), the PSO, legacy contracts, etc. …

Market developments external to the SEM which should ESBI thinks should be considered in any re-design or revision of the market rules include:

- all-island electricity retail and gas market;
- interconnection with Britain may result in an all-islands market in the long term and will certainly require some level of rule alignment in the medium term; and
- any relevant developments in the carbon market.

2 Comments on Consultation Process

2.1 Information Provided in Consultation Paper

We consider that the consultation paper does not provide enough information and does not include a cost-profit studio. It is needed more research, legal advice, and modelling and to count with the opinion from the TSO's and the industry participants involved.

With the information contained in the paper, ESBI cannot model any of the options because the Plexos calibration provided by the RAs for current market models the unconstrained schedule and cannot be used to analyse different scenarios of constrained dispatch.

In order to be able to model the possible effects on ESBI business of the different options we would need more information about the transmission constraint model considered. Like most of the generators we do not have the expertise or information in this area which the SOs, their consultants and the RAs have.

We think it would have been helpful if the consultation had included:

- Details of the impacts on participants and more information on the scale of the issues..
- the impact of interconnection or other market developments
- Proposals for solutions other than a market re-design to address an infrastructure problem
- consideration of other market mechanisms such as capacity payment mechanism,bidding code of practice, SMP uplift and ancillary services.

Proposals would change high level SEM design, increase regulatory risk, but not address other longer term market developments

2.2 Market Design and Generator Revenues

The capacity pot has been significantly reduced for 2010 and ancillary service revenues are also likely to come under pressure over time. Generators are facing revenue volatility in the SEM and ESBI considers that, in order to assure security of supply, it will be critical to maintain the revenue streams of conventional generators at least for the medium term (five years or so). In parallel with that no obstacles should be put in the way of achieving the renewable targets in either jurisdiction.

This could be achieved by:

- Retention of the current SEM 'unconstrained' design to ensure revenue stream for in-merit generators
- Establishing additional 'system support services' from a new pot for generators that are 'constrained on'. In other jurisdictions "Transmission Must Run" or "Reliability Must Run" services are defined for which a specific payment from the TSO is available.
- Clarification by Government on the continuation or successor to the REFIT scheme or further out-of-market supports schemes to provide investor confidence to aid realisation of Governments' renewable targets

2.3 Transmission and System Operation

The TSOs (EirGrid and SONI) have a role in resolving the system issues discussed in the paper, for example:

1. Publishing models of the power system to indicate the evolution of constraints in line with new connections and grid reinforcements to provide market participants with information about where (local or system wide) constraints will emerge or lessen over time. This would help generators to comprehend the risks that they might face should the principle of the market alter from that of unconstrained schedule today.
2. Transparency into how (heuristics process etc) 'constraints' are determined by the TSOs and how these 'constraints' impact on dispatch decisions by the TSOs. At present the market is experiencing an increase in constrained running of conventional plant which may require further remuneration through new means e.g. system support contracts etc, or through substantial change to the CPM.
3. Transparency into EirGrid and SONI power system operation policies, practices and tools, regarding how the TSOs will operate / dispatch the power system as the level of renewable (and in particular intermittent) generation comes onto the system - these need to be developed in conjunction with the market participants over time.

ESBI considers that these models, policies and practices should be published if they exist and should be made available to Market Participants, and that they should be developed if they don't exist.

3 Comments Requested in Paper

3.1 Proposed Option in market dispatch

3.1.1 Option 1

This option does not meet with one the SEM design high level principles. During the SEM market design was decided to establish a non constraint market in order to give more transparency and increase the volume of energy interchanged.

A non constraint market was chosen for reasons of simplicity and transparency, to be relatively easy for participants to forecast and to incorporate into risk management strategies which help to encourage future investments.

However, a constraint market as proposed does not favour transparency, and does not provide a clear and unique SEM electricity price.

3.1.2 Option 2

This option will discourage future investment in renewable energy, which supposes that the Government's objective to achieve a 40% of the energy from renewable will be very unlikely. The 3.900 MW objective for Gate 3 could be affected, because it would be very difficult to close any financial deal with this option.

This option does not encourage developing more new and efficient technologies and the current ones will have preference, so it is expected higher SMP prices which won't help Ireland economy.

ESBI does not agree with the position that this option will help to add more pressure from new entrant generators on the transmission and distribution companies to complete reinforcements in a timely manner. This issue should be managed by the RAs and we do not regard changes to the market rules as the best way to incentivise the transmission development.

And, we also disagree with the position that this option will help to promote that the generators locate in the optimal nodes. The objective of the market should be to send the agents information about the price of the energy, and during the High Level Design was decided to establish transmission charges (TUoS and TLAF) to deal with this issue.

3.1.3 Option 3

ESBI considers that this option introduces more complexity, and reduces transparency and simplicity.

3.2 Proposed Wind Dispatch

There appear to be varying interpretations of the EU directive and ESBI's view is that in-depth legal advice should be obtained by the RAs to ensure that changing the current arrangements from priority dispatch for renewable energy to qualified priority meets with the EU directive on renewable energy.

3.2.1 Option 2(a) and Option 2(b)

ESBI considers that the RA's should review these options because they could impose a major obstacle to developing wind farms in Ireland, reduce the likelihood of achieving Government renewable objective and result in legal problems with the EU.

Most of the wind farms are currently financed by Project Finance. Under this rules, a risk of not been dispatched may prevent financial close on new wind projects and slow down the development of the Irish wind industry. Some wind farms that have just been built or are under construction could see forecast incomes dramatically changing.

3.2.2 Option 2(c)

ESBI considers that this option introduces discrimination between the different agents depending on which country they are installed and this is incompatible with the objective of a single, all-island electricity market. The Governments through their renewable subsidy policy could interfere in the market dispatch. Besides, to control that wind farms are biding their subsidies, it will require from the RA's to control the bid strategy of hundreds of future MW.

3.2.3 Option 2(d)

ESBI considers that this option could be the easiest one to implement, and depending on the value it could be very similar to priority dispatch but could reduce the cost of the system. But more detailed modelling will be needed in order to determine the optimal value for the "effective price" that avoids excessive episodes of high cost for the system due to constrained-off CCGT but avoids as much as possible any curtailment or non dispatch of wind farms.

3.3 Modification of the TSO dispatch model

The consultation paper asks "*If it will be needed to add or modify in the TSO dispatch model some additional technical parameters to deal with the increase volume of wind farms, like system inertia, fault levels etc… and if it will be needed to modify some aspects of the Grid Code in order to ensure that future generation portfolios continue to support the satisfactory operation of the system".*

"The TSOs should continue to dispatch the system to minimise production cost of generation, taking into account system security requirements and, as now, disregarding any concept of firmness in the dispatch process".

ESBI considers that the main concept under the TSO decision should be safety and quality of supply, more than economic reasons. The SEM was designed so the price is determined by the market and later the TSO has to re-dispatch trying to change as little as possible the market schedule and just with safety reasons.

ESBI proposes to create a workgroup including different agents implied (RA's, the TSO's, wind developers, manufactures, engineering companies..) that could be able to establish which could be the optimal solutions that should be adopted to increase the wind penetration in the grid.

3.4 Establish PFLOOR as the lower limit to SMP.

ESBI agrees with this option.

3.5 The quantity of generation charged with PFLOOR

The consultation paper proposes that "*the quantity of generation charged with PFLOOR in the event of an Excessive Generation Event arising from an excess of Price Taking Generation that exceed System Demand. The MSQs of Price Taking Generation should, in such circumstances be pro-rated down so that the total quantity is equal to System Demand"*

ESBI agrees with this option.

3.6 Tie-break rules

The consultation paper proposes that "*Where tie-break rules are required (there is a constraint and the TSO has to choose between some renewable generator which will be de-loaded), the TSO should be instructed on a pro-rata basis".*

ESBI considers that reducing generation pro-rata seems reasonable under such situations, but only after taking account of all other possible sources of difference, such as safety, priority dispatch, non-firm/firm, and cost.

4 Conclusions and Recommendations

4.1 Conclusions

This consultation paper is proposing very important changes in the market after just two years. These changes could have very important consequences like failing to achieve all-island renewable objectives or reducing future investment in this market,

We believe that the long-term interests of the electricity supply industry in Ireland and of its customers would be best served by having stable, transparent and predictable market rules, so that investors could decide to invest in Ireland with a high certainty of earning returns on their investment. The best signal for the investors is a market where the rules do not change too often and which is as transparent and as easy to understand as possible.

According to the modelling included in the consultation paper, the first significant constraint problems won't start before 2015 and currently there is a reasonable correlation between market schedule and market dispatch, so ESBI considers that the system is not facing an "urgent" problem.

It is expected in the next few years that increased interconnection capacity between UK and Ireland will allow the development of the all-islands market, so we consider that the market rules should not be changed now if we have to change them again after two or three years.

In the current economy changing the rules could send the investors an image of the SEM as a market with high regulatory risk so fundamental changes need to be progressive and involve all of the participants.

Other important issue in the consultation paper is about the priority dispatch for renewable energy. ESBI considers that due to the important effects that it could have on the wind industry, it is critical to obtain in depth legal, economic and environmental advice, particularly as to whether the proposals are legal under EU directives.

Moreover, the RA's should evaluate if it will be possible to achieve the two government's objectives of 40% of the electricity demand from renewable in 2020, with the changes proposed. To introduce volatility and uncertainty will not help to attract the investment required.

Finally, ESBI considers that it is not the best moment to introduce such an important change when generator revenues are being affected by the economical environment and the RAs decision to reduce the capacity payment by 15%.

4.2 Recommendations

4.2.1 Consultation process

Any changes in the High Level Design of the market should be justified on the basis of consensus on the issues facing the market, how they are to be addressed and what time-scale is appropriate. Industry participants should identify and agree on the principles, process, key issues for market design in order to design an optimal solution by the end of Q1 2010. ESBI believes that it is essential to hold workshops among the RA's, the TSOs, manufacturers, consultancy companies and the industry. Additional consultation papers, studies and modelling are required to give the different agents more information in order to take the optimal decision on what

the market will look like in 5 years time.. The goal would be to develop a 'big picture' consultation on what participants regards as issues for Day 3 (the SEM being Day 1 and the harmonisation of transmission charges being Day 2).

4.2.2 Identification of Alternatives

Before changing the high level design market, we believe that some solutions implemented in other countries with high renewable capacity should be analysed, for example

- establish technical requirements to the generators
- modify the current Grid Code
- review the security and design parameters of the transmission lines
- establishing local renewable dispatch centres
- ancillary services that could reward more flexible power generators or to consider deviation charges

4.2.3 Modelling and Information

The SOs or the RAs should publish a transmission model (a PSS/E model or constrained Plexos model) and update it annually. This would allow market participants and potential investors to analyse the likely outcome of constrained dispatch in the SEM.

As part of the Day 3 consultation process the SOs or the RAs should provide modelling of any options proposed, collect input form the industry and develop a benefit-cost study of the different options. This would let the different agents to be sure about the implications in their business with the final objective to get market consensus. Participants should be consulted on the hypotheses modelled (demand, fuel prices, renewable capacity, CCGT capacity, transmission system reinforcements, transmission capacity.)

4.2.4 Transmission Infrastructure

As described in the consultation paper, many of the problems discussed are caused by inadequate transmission infrastructure. Hence, ESBI considers that the RA's should focus on helping to the SOs and the transmission owners in developing the enough transmission capacity needed for future generation and demand and to achieve the all-island renewable objectives.