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Utility Regulator
Queens House
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Kevin Hagan

Commission for Energy Regulation
The Exchange Belgard Square
North Tallaght
Dublin 24

5th June 2015

Dear Sirs,

Re: I-SEM ETA Detailed Design – Markets Consultation Paper

The Demand Response Aggregators of Ireland (“DRAI”) is a recently formed association of ten Demand Side Unit (DSU) and Aggregated Generating Unit (AGU) providers in the SEM and we wanted to make sure that the concerns of all our members were included. Our purpose is to provide a single voice on policy and regulatory matters of common interest and we very much look forward to working with you into the future. I hope that you will consider this response in your deliberations as we believe there is a significant role for Demand Side Participation (or demand response) in any future market arrangements in Ireland.

Facilitation of Demand Side Participation in the I-SEM

Fundamentally, the DRAI expects that demand response (DR) will become increasingly important in the design of the Irish electricity system and believes that the Regulators need to give further consideration to how Demand Side Units (DSU) can be facilitated when developing the new I-SEM market arrangements.

Across Europe, DSUs are increasingly recognised as an effective and highly efficient means of balancing the supply of electricity and consumer demand, and within the I-SEM the requirement to balance the increasing proportion of variable wind generation is expected to become ever more necessary. Indeed the delivery of the 2020 and 2030 renewable energy targets is projected to result in one of the highest penetrations of variable non-synchronous generation on any power system in the world and is expected to create very challenging future operational scenarios for

The Demand Response Aggregators of Ireland has the following membership



the grid system operators¹. It is therefore paramount that this advanced and progressive electricity system is supported by appropriate market arrangements within the I-SEM to encourage the growth on DR and other system balancing measures.

Therefore whilst the DRAI recognises that flexible dispatchable generation (peaking plants/OCGT) capacity provides an effective means of delivering real time balancing of renewable generation variability in the today's electricity system design, the DRAI is also of the opinion that DR will have an increasing role in delivering system balance into the future. The DRAI therefore believes that the Regulators need to be mindful of this growing potential in order to ensure that the market arrangements within the I-SEM provide adequate support for DR and in particular DSU participation into the future.

In our consultation response we begin by drawing attention to an important issue which exists within the current SEM market arrangements and is expected to prevail within the I-SEM, given the proposed ETA design. The way in which the Balancing Responsible Party (BRP) arrangement detrimentally affects/impinges upon participation of DSUs is then explained, before two alternative options are suggested by the DRAI, each of which could potentially provide an acceptable solution. In each case the pros and cons of the approach are both considered.

Balancing Responsible Party (BRP)

As with other market participants, we propose that the DSU may participate in the Day-Ahead Market (DAM,) Intra Day Trading (IDT) and Balancing markets by way of bidding a price-quantity (PQ) pair. In the event of the bid being in merit, the DSU will receive a Physical Nomination (PN) or be dispatched by the TSO in the normal way. The DSU aggregator will then request its member customers to reduce demand, resulting in reduced consumption of energy.

- It is likely that the customers' Supplier will have taken a position on behalf of the customer in the DAM or the IDT markets. If dispatched the customer consumes less energy, and so the the Supplier will be in a long position;
- As the DSU will have been dispatched, provided energy, and so it will also be in a long position;
- Finally the reason for the dispatch occurring is that some other participant is in a short position;

The above description sets out the need for a solution to settle the market as two participants are in a long position while only one is in a short position. This problem existed in the SEM and is a natural problem in all markets which facilitate third party aggregators and DR participation in the energy market. In considering this problem it is important to consider the following issues.

- A DSU is generally made up of customers who have supply agreements with different suppliers from each other;
- It would be unworkable for the DSU to enter into bilateral arrangements with each supplier. This must be handled by the NEMO;

¹ EIRGRID GROUP ANNUAL RENEWABLE REPORT 2013 Towards a Smart, Sustainable Energy Future

- DSUs generally bid a high energy price. Payment of an Energy Payment is the primary incentive for them to reduce this bid;
- Where possible, the long retailer should be protected from being at a loss due to the participation of their customers;
- No Supplier should have the option of reducing their customers' rights to participate in a third party DSU scheme;

The market must not depend on the aggregator securing bilateral agreements with the suppliers and/or BRPs of their customers. Suppliers could, and in many European jurisdictions, do, simply refuse to enter such an agreement, or simply refuse to allow aggregators to work with "their" customers, even though the customers may wish to do business with the aggregator. This would result in incumbent suppliers being the only practical participants to provide aggregation (a solution which was tried and failed in the SEM). Indeed it should be a licence requirement of all BRPs to allow customers to take part in DSM schemes without the need for bilateral agreements between aggregators and the BRPs. Instead this relationship must be managed by NEMO and we feel that it is critical that this be designed appropriately.

Two options for facilitation of this challenge within ISEM are set out below. The first more closely resembles the methodology which exists in the SEM, while the second is based on a more progressive model used in many European markets.

Option 1 - No Energy Payments Option

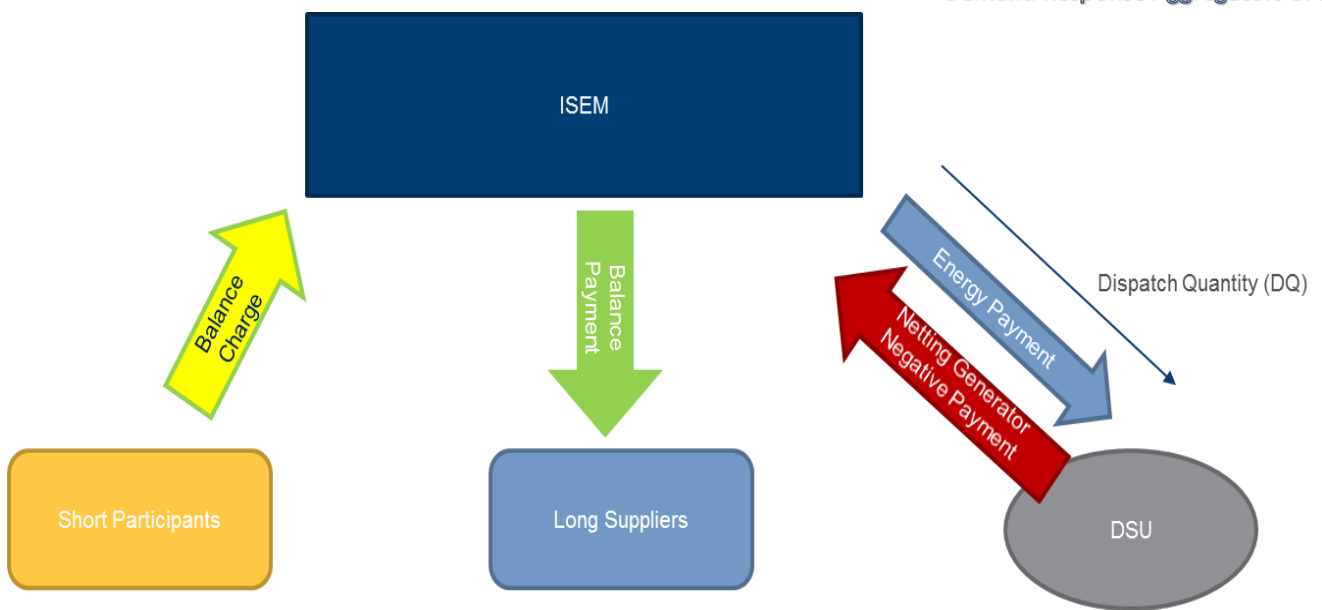
This option most closely resembles the solution used in the SEM. In this option, the following steps are taken to make the market whole:

When registration of a DSU is completed, a notional "Netting Generator" is also created. In the event of a dispatch, the DSU is credited with an energy payment equivalent to the "Dispatch Quantity" it has been requested to fulfill. At the same time the Netting Generator is credited with a number which is the negative of the DSU energy payment.

This results in the DSU returning to a balanced position. It also means it receives no energy payment.

This option leaves the "long" supplier with their long position. This will result in them being paid for their long position in the balancing market.

The payment to the long retailer is paid for by the "short" participant



The benefits of this option are as follows:

- It is relatively simple to implement;
- The long supplier is likely kept whole;

The negatives of this option are:

- No incentive to bid a low energy price is created for the DSU as they receive no energy payment;
- Less alignment with European targets;
- In the event of a DSU being asked to pay a “reliability option”, they receive NO energy payment to fund the clawback. This is discriminatory and would be unworkable;

Option 2 - Energy Payments Option

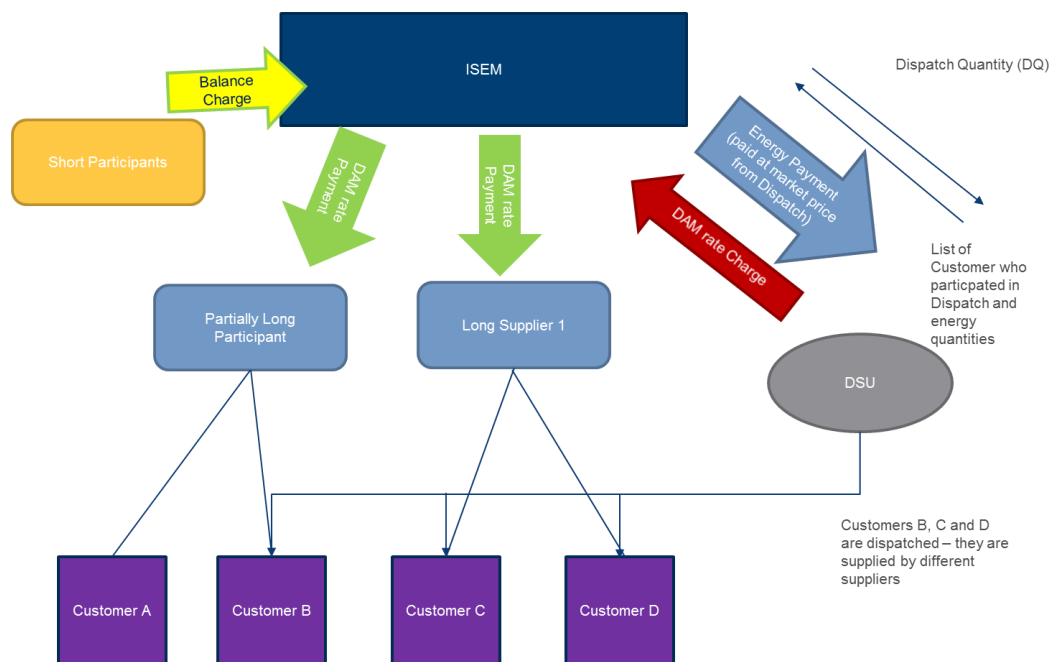
This option provides the DSU with an energy payment and so provides an incentive to bid low prices and run. It most closely resembles the solution advocated by (Smart Energy Demand Coalition) SEDC as the best option around Europe. In the event of a dispatch, the DSU is credited with an energy payment equivalent to the rate settled for that market.

Within an agreed period, the DSU must submit to the NEMO a list of customers (MPRNs) who participated in the dispatch and the quantities of energy which they reduced by for the purposes of the dispatch. The sum of these quantities and the Dispatch Quantity (DQ) should be equal.

The NEMO would then charge the DSU for this energy at the DAM rate. The payment which the DSU ultimately receives would therefore be the difference between the energy payment they receive for the market they participated in, and the energy charge they pay at the DAM rate.

NEMO would then credit the suppliers whose customers participated in the dispatch with an energy payment covering the energy their customers provided to the dispatch at the DAM rate. In this way the supplier is not at a loss for the dispatch.

The “short” participant will pay for the energy at the rate of the market where the DSU was dispatched.



The benefit of this option are as follows:

- Since the DSU receives an Energy Payment, it is incentivised to bid a low price and run.
- The long supplier is likely to be kept whole.
- More alignment with European target.

The negatives of this option are:

- More complicated to administer.
- In the event of a DSU being asked to pay a “reliability option”, they will only receive an energy payment which is the difference between the DAM rate and the rate of the market in which they are dispatched. This is a lower rate than generators and so if asked to pay the clawback they would be at a disadvantage. This is discriminatory.

We look forward to hearing from you and hope that you can meet with us at your earliest convenience.

Yours sincerely,



PATRICK LIDDY
DRAI Chairman