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Sheena Byrne
Commission for Energy Regulation
The Exchange
Belgard Square North
Dublin 24

Kenny Dane
Utility Regulator
Queens House
14 Queen Street
Belfast
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9th June, 2017

Dear Sheena and Kenny,

PrePayPower, as Ireland's largest prepay electricity provider, welcomes the opportunity to contribute to the SEM Committee's consultation on the I-SEM Policy Parameters & Scheduling and Dispatch Parameters (SEM-17-029).

The key parameters under consultation in this paper are:

- For pricing, the Price Average Reference Quantity (PAR) which sets the number of MW of energy balancing actions over which the imbalance price is calculated within the market net imbalance volume, the De Minimis Acceptance Threshold which sets a threshold of balancing market action which will not be included in the balancing price, and the market price cap (PCAP) and floor (PFLOOR) in the Balancing Market (BM);
- For dispatch, the Long Notice Adjustment Factor (LNAF) and the System Imbalance Flattening Factor (SIFF), which together send an operational signal to the TSO to take balancing actions from shorter-response and frequently more expensive generators;
- For credit cover, the Response Period Duration Parameter, which sets how long a participant has to respond to a Credit Cover Increase Notice (CCIN).

Each of these variables represent a trade-off between idealised market operation (an economically pure imbalance price, sending signals for flexible generation, ensuring a fully collateralised market) against elements of risk and practicality (excessively volatile prices, excessive production costs and otherwise non-ideal schedules, under-collateralisation of the Balancing Market).

PrePayPower will focus on these three sets of variables in its response. It has no comment / objection to the other proposals within the paper, including:

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- The Pricing Materiality Threshold;
- The daily time for setting the SIFF.

Our high-level submission can be summarised as follows:

In the absence of actual operation of the I-SEM, many of these key parameters remain guess-work. We acknowledge the attempt and detailed work to provide quantification and rationale, and the need to "start somewhere" but this does not obviate the subsequent need for:

a) **Clear, objective, market trial exit criteria which focusses on the quality of balancing market pricing outcomes, and the reasonableness of the credit cover requirements for participants;**
b) **A formal programme during the market bedding down period which regularily reports on these quality metrics, and has a fast acting mechanism with appropriate governance notified to the industry to resolve issues arising, raised by market participants, the NEMO, SEMO, the TSO or the Regulatory Authorities.**

We recommend that no final decision is made on these parameters until at the very least they are tested within an unscripted market trial environment.

This will allow all paramters to be tested together and consistently, e.g. LNAF, SIFF, PAR and DMAT in particular, to ensure that the chosen suite of variables is mutually consistent. This will also address an acknowledged limitation in the modelling approach, that being hourly modelling being utilised to tune variables for utilisation in a five-minute pricing interval.

Pricing Variables: PAR, DMAT, PCAP, PFLOOR

PrePayPower intends to purchase the bulk of its residential demand in the day-ahead market (DAM), and hedge against that DAM price. There will be times where trading in the intraday market (IDM) and leaving some residual volumes for the BM is commercially justified. That said, the key issues with these BM pricing variables for PrePayPower for "Day 1" of the market operation will be:

- The influence of the BM price on ex ante timeframes, impacting gas hedging strategies; and
- The level of change in credit cover driven by BM pricing events.

PrePayPower notes the intended operation of the Reliability Options (potential hole in the hedge issues notwithstanding) does not necessarily fully address these issues.

DMAT

The paper spends a considerable amount of time discussing the potential for inadvertent acceptances of bid offer quantities in the BM due to the technical operation of scheduling tool time-bands, dispatch profiling

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periods, combined with the minute-to-minute detail of final physical notifications (FPNs). It is hard to not come to the conclusion that the practical implications of the detailed algebra of the Flagging and Tagging regime are only being given detailed consideration now[1], and that they will only be really known after a period of live I-SEM operation.

We also note the recent volatility in the SEM of market prices arising from production cost scheduling of generation, linked with the within-day commercial offers of AES Ballylumford, and arising from the scheduling of relatively few MWs of production. These issues can be highly material for the electricity consumer. We have no confidence whether such "acceptances" in today's market design would be rejected by the proposed DMAT, which PrePayPower fully believes they should be.

We note that AES Kilroot also drove market price spikes for a few MW of scheduled generation at its higher priced PQ pairs during the early years of operation of the SEM. This was driven by a different scenario, and goes to show there are different paths to such pricing events occurring.

The DMAT should therefore have the qualitative effect of removing such actions from pricing events in the future, and needs to be regularly assessed to ensure it does so. We suggest an analysis of the speed of reaction of TSO dispatch instructions to within-day price changes in Commercial Offer Data (which would be the proxy of the current price issue in the SEM translated to the I-SEM) to see if the proposed DMAT is sufficiently sized.

PAR

PrePayPower's concern during the Rules Working Group process was that cheaper balancing actions at price breakpoints were considered price-non-marginal, removed from the pricing process, and not subsequently reclassified as energy balancing when a more expensive energy balancing action was identified. This pushes the identification of the NIV volume to the set of more expensive actions in the pricing stack than would occur in BETTA. We were never convinced that the methodology proposed by SEM-O was actually in line with the High-Level Design option – we believe it is more akin to a PJM marginal action identification methodology which was rejected as an option during the consultation process.

We therefore reject the inferences drawn from the BETTA experience in the consultation. The I-SEM design simply does not have a BETTA imbalance pricing methodology.

Furthermore, we believe that the scaling down of the modelled PAR is unduly concerned with the relative size of the markets. PAR will only have effect if it spans a differently priced Bid Offer Acceptance. By scaling down the range of PAR volumes by the ratio of the SEM to BETTA volumes, it is entirely unsurprising that the analysis demonstrates immaterial changes in outcome from the PAR-1 and PAR-60 volumes: for a

[1] Similar to the credit cover analysis percentile parameter (which was subsequently justified by showing SMP to be a volatile market price relative to European norms in SEM-17-034), but still no modelling is performed.

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considerable amount of time, the PAR averages across the same single bid-offer acceptance, or across bid-offer acceptances which are highly similar in price.

So the paper utilises an artificially narrow band of PAR ranges, analyses the outcomes based on modelled assumptions, concludes the outcome is the same irrespective of the choice of PAR, and therefore takes the economically pure decision to go with PAR-1 which is most sensitive to errors in the modelling inputs.

If the analysis shows that the analysis is broadly insensitive to the choice of PAR, acknowledges the unavoidable limitations to the modelling approach, then surely the rational decision is to choose a PAR that is least sensitive to the limitations in the approach, i.e. the highest PAR? Again, subject to real-life operation of the I-SEM, the sensitivity of the modelling inputs on the PAR recommendation can be assessed, and ultimately moved closer to PAR1 if real-life data suggests it prudent to do so.

PCAP and PFLOOR

On a similar theme, setting the PCAP to VOLL plus inflation (and PFLOOR to -VOLL without inflation) are theoretically sound, but do not acknowledge the potential exposure of suppliers to such prices should a hole-in-the-hedge issue emerge with the Reliability Options. The choice to link these values in order to reduce distortion in the intraday market is perplexing, as distortions against DAM actions are equally important, if not more so. A PCAP of VOLL plus inflation in the BM is a signal for wind generation (which is unlikely to have a Reliability Option) to sell in the BM rather than the DAM.

As a result, we believe that the BM PCAP and PFLOOR should be set to the DAM price cap and price floor of €3000/MWh and -€500/MWh accordingly. This reduces distortion between the DAM and the BM – which at the time of writing are the only two markets with a completed design – and limits the exposure to potential hole-in-the-hedge issues. When the industry is concerned with any liquidity in the IDM, it seems overly protective to protect potential IDM trades between €3000/MWh and €9,999/MWh, and -€500/MWh and -€9,999/MWh.

Again, like DMAT and PCAP, this can be reviewed over time once the market is in operation, and along with the review of EUPHEMIA price caps and floors at the European level.

Dispatch Variables: LNAF and SIFF

The fundamental finding of the TSO analysis is more unserved energy, and more shortfalls of reserves arising when picking a LNAF that drives the scheduling process to pick up shorter notice plant. As a high level observation, with the application of LNAF we note that the modelling methodology frequently leaves the system with insufficient scheduled generation after the Long-Term Scheduling (LTS) step, meaning that the Real Time Dispatch (RTD) model leads to the aforementioned unserved energy and shortfalls of reserves. We trust that the actual real-life scheduling process would not result in such outcomes, and therefore some of the conclusions around the degree of unserved energy and shortfalls of reserves would not happen in

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practice, i.e. the conclusions drawn do not consider the real-life operations of a scheduler within the control room after the LTS step.

That said, however, we agree that a cautious approach is warranted at the start of this market in terms of market scheduling. We are perhaps understandably confused why such a prudent approach was not taken with regard to pricing parameters within the consultation documentation.

Consistent with our positions above, we believe with starting with a prudent LNAF of zero, and reviewing it under an established post I-SEM go-live process along with the other key policy parameters consulted on in this paper (and indeed, along with the credit cover parameters determined in SEM-17-34).

Credit Cover: Response Period Duration Parameter

PrePayPower welcomes some of the discussion in the consultation paper, namely that credit cover increase notices (CCINs) may be the result of BM pricing changes, rather than any ex ante taken position that can be subsequently "traded-out" of. We believe that the former scenario (BM market prices) will be the main issue for a supplier, and consequentially the only balance-responsible methodology to resolve such an issue with be through cash lodgement to the cash collateral account. As participants are not necessarily going to bank with the SEM-O bank where such cash collateral accounts are held in trust, it means that such transactions must be made by next day banking payments.

For the avoidance of doubt, even with maximum pre-approved credit limits in place at a bank, we do not think it anyways feasiable to issue a new Letter of Credit with an increased credit letter under the timeframes indicated[2].

The following bullet point lists examine three different scenarios. Same day payments to a domestic account must be taken by 12noon, or by 5pm for next day payments. We believe these timelines will be binding for cash lodgements to a credit cover account which may be held by a different bank. These timelines also assume, in the absence of a Settlement Calendar, that information regarding the ex ante traded quantities are provided after the ECC booking cut at 1500hrs (1600hrs CET) to the BM. The following analysis in relation to the available trading window to resolve issues is sensitive to that assumption (which may be incorrect), but does not invalidate the information in relation to banking cash-transfer resolution of credit cover issues.

[2] It may take a number of days in practice to increase the amount of cash guaranteed by a Letter of Credit within the approved limits. Getting the Letter of Credit in the first place can take multiple weeks.

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9am Credit Cover Increase Notice

- Credit assessment at 0900hrs results in an issued Credit Cover Increase Notice (CCIN)
- Potential for continuous local IDM trading to purchase more ex ante power between 1000hrs and 1400hrs to resolve credit cover requirement if driven by volume exposure; **Four Trading Hours to Resolve, over a shortening trading day**
- Banking payment must be authorised between 1000hrs and 1200hrs to ensure a same day payment and that the 1530hrs credit assessment is positive, if trading itself will not resolve the issue; **Two Banking Hours to Resolve**
- Further credit assessment at 1200hrs. Unresolved CCIN ignored.
- Booking cut occurs at 1500hrs. No further trading will impact CCIN calculation.
- Credit assessment at 1530hrs. Issue resolved.

12noon Credit Cover Increase Notice

- Credit assessment at 1200hrs results in an issued Credit Cover Increase Notice (CCIN)
- Potential for continuous local IDM trading to purchase more ex ante power between 1300hrs and 1400hrs to resolve credit cover requirement if driven by volume exposure; **One Trading Hour to Resolve, over a shortening trading day**
- Banking payment must be authorised between 1300hrs and 1700hrs to ensure next day payment so that the 0900hrs credit assessment is positive, if trading itself will not resolve the issue; **Four Banking Hours to Resolve**
- Booking cut occurs at 1500hrs. No further trading will impact CCIN calculation.
- Further credit assessment at 1530hrs. Unresolved CCIN ignored.
- Credit assessment at 0900hrs. Issue resolved.

3.30pm Credit Cover Increase Notice

- Credit assessment at 1530hrs results in an issued Credit Cover Increase Notice (CCIN)
- No potential trading resolution, as next booking cut at ECC occurs at 1500hrs the next working day
- Banking payment must be authorised between 1630hrs and 1700hrs to ensure next day payment that the 1200hrs credit assessment is positive; **Half a Banking Hour to Resolve**
- Further credit assessment at 0900hrs. CCIN resolved.
- Credit assessment at 1200hrs. CCIN issue has same status as 0900hrs, unless pricing outcomes have changed materially.

Clearly, the actionable time to remedy is not five hours. PrePayPower has consistently requested pragmatic consideration of credit cover requirements (both in the level of quantum, and more recently with regards to its volatility) and we remain concerned that proposals are being made in an abstraction of the practical outcomes for Irish market participants.

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It is insufficient at this late stage to point to BETTA parameter setting and making an all-things-being-equal assessment of parameter values, where it is clear there is differences between the markets, not least in the imbalance pricing methodology.

PrePayPower believes this needs more work, and time-to-remedy should be of the order of days, overlapping with the Supplier Suspension Delay Period is ongoing.

Our response is not confidential and may be published in full. If you wish to have further communication in relation to our submission, please don't hesitate to contact me.

Yours faithfully,

Cathal Fay