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9th June 2017

RE: I-SEM Policy Parameters and Scheduling & Dispatch Parameters Consultation, SEM-17-029 ("the Consultation")

Dear Sheena and Kenny,

Bord Gáis Energy (**BGE**) welcomes this opportunity to respond to the Consultation on the I-SEM Trading & Settlement Code Policy Parameters and Scheduling & Dispatch Parameters. BGE's main concerns around the proposals put forward in the Consultation relate to:

  i.   The De Minimus Acceptance Threshold (**DMAT**) - our main views include: a) a preference for an assessment that utilises modelling in place of the theoretical approach that has been undertaken; and, b) our belief that the DMAT value is too high and should be set at a maximum of 0.17MWh or less, due to the fact that the proposed PAR is set at 1MWh (which BGE supports) and the fact that comparisons to BETTA should take account of the comparatively larger size of the BETTA market implying that a lower DMAT threshold than that in BETTA, should apply in I-SEM;

  ii.   The three Scheduling & Dispatch parameters (**LNAF, SIFF, SSII**) - in essence BGE supports the proposal to set values to zero until a better informed assessment can be carried out based on I-SEM operational data. However that assessment should commence within approximately 6 months of I-SEM go-live and a commitment to implement positive parameter values by the end of 2019 is requested.

BGE outlines more detailed views on the above and on each of the various consulted upon parameters consecutively below.

1.   Response Period Duration parameter

Given the potential impact of the rejection by SEMO of ex-ante contracted quantities from SEMOpx/ NEMO BGE strongly supports the adoption of this parameter. We are in favour of the proposed 5 hour duration as outlined in the Consultation, i.e. (a) that the 5 hours is in addition to the time it takes from the running of a credit assessment to receipt of a credit cover increase notice; and (b) that the 5 hour duration is applied within working day hours of 09:00- 17:30. The 5 hour duration is also considered suitable from a financial processes perspective.

2.   PCAP (Market Price Cap) and PFLOOR (Market Price Floor) parameters

2.1. PCAP

BGE's primary concern with the proposed PCAP for I-SEM relates to whether it is a cap on (a) energy revenues only; or (b) energy plus capacity revenues. It is stated in the consultation paper[1], that PCAP in I-SEM "is the overall price cap equivalent to VOLL in the SEM". Earlier in the consultation paper, it is stated that in SEM, "the overall price (SMP plus capacity rewards) [is] capped by VOLL". Taking these two statements together implies that the proposed I-SEM Balancing Market (**BM**) PCAP is a price cap for energy plus capacity revenues which is unintuitive for a number of reasons.

      Firstly, if capacity is included under the PCAP it is unclear how primary and secondary capacity volumes would be calculated for inclusion under the cap? BGE anticipates that inclusion of capacity under the cap would cause significant difficulties in predicting when the price cap would actually arise and bind in I-SEM which is undesirable for market participants. Secondly, the EU-set day ahead market (**DAM**) and intraday market (**IDM**)

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[1] Page 11

1

price caps, cap energy-only revenues (noting for example some EU countries do not have distinct capacity revenues). If it is the case that the I-SEM PCAP is intended to cap energy plus capacity revenues in aggregate, the appropriateness of basing the proposed €10,000/MWh BM PCAP primarily on the EU-set DAM, IDM PCAPs, is undermined. An I-SEM BM PCAP that caps energy plus capacity revenues, is also likely to give rise to ex-ante trade distortions.

In this context, and in the interests of ensuring consistency in the approach to setting PCAPs across the DAM, IDM and BM, BGE believes that the €10,000/MWh is acceptable only if it is a PCAP on energy revenues alone. Confirmation that the PCAP applies to energy only revenues is therefore requested.

2.2. PFLOOR

BGE notes the rationale in the consultation for setting PFLOOR at a level outside the ex-ante market price floors. With the IDM price floor set at -€9,999/MWh a BM PFLOOR slightly above this should apply to ensure the least distortion between I-SEM market timeframes. On this basis, BGE believes that the proposed -€10,000/MWh value should be re-set to be at the 'other side' of -€9,999/MWh (i.e. PFLOOR should be between zero and -€9,998/MWh).

3. Imbalance Pricing Parameters

3.1. De Minimus Acceptance Threshold (DMAT) parameter

BGE believes that to determine a suitable DMAT, a modelling assessment, as opposed to a theoretical assessment as undertaken in the consultation, is preferable on the basis that:
  (a) Under the I-SEM imbalance pricing process, non-marginal actions will be flagged out of the pricing stack. As ramping volumes are by their nature non-marginal, BGE understands that ramping volumes/ actions will be flagged and fundamentally flagged actions are not considered a suitable basis for determining the appropriate value for DMAT;
  (b) The relevance of the role of the FPN curve/ dispatch curve interlinkage in its determination of DMAT is unclear. In particular, BGE seeks further information on the rationale behind the statement that "volumes which could arise in a five minute period between an FPN curve ramping [at the average typical ramp rate of a unit], and a dispatch curve static at the average value of the FPN curve over the five minutes, can provide further indication of the magnitude required of the value for the DMAT parameter".
BGE believes an objective modelling approach to determining DMAT would be preferable to the theoretical assessment carried out. For example, historical analysis on the volumes going through the market that are marginal/ non-marginal could be carried out by comparing Market Schedule Quantities (**MSQ**) against Dispatch Quantities (**DQ**). A sensitivity analysis on the pricing algorithm incorporating the smallest volumes identified through the MSQ vs. DQ comparison could then be carried out to determine the impacts of various volume sizes on pricing in order to determine a suitable DMAT volume.

With regard to the actual level of the proposed DMAT, BGE believes the 0.4MWh proposal is too high a value for DMAT and it is our position that DMAT should be set at a maximum value of 0.17MWh or less (closer to zero). Over the course of an Imbalance Settlement Period (**ISP**) 0.4MWh equates to 2.4MWh which is higher than the proposed 1MWh PAR value over an ISP. BGE believes that this is unintuitive particularly when a PAR of 1MWh is considered a suitable volume on which to base a price (which BGE believes it is). A DMAT that is less than 1MWh over an ISP (i.e. a DMAT that is less than 0.17MWh in the 5-minute pricing period) would therefore be more appropriate. There is also an issue of scale when comparing the BETTA DMAT equivalent to the I-SEM DMAT which should not be overlooked. While a DMAT equivalent to the BETTA value would equate 0.17MWh over a 5 minute period the relatively smaller size of the I-SEM compared to BETTA implies a DMAT smaller than 0.17MWh should apply in I-SEM.

Finally, ramp rate references in the Consultation assessment raise a clarity issue for BGE in terms of the flagging process. As a ramping unit is by nature "non marginal" please confirm that ramping volumes (whether above or below DMAT) will in fact be considered non-marginal volumes/ actions in the I-SEM balancing market pricing process and thus will be flagged out when they arise?

3.2. Price Average Reference Quantity (PAR) parameter

Based on the modelling and results provided in the consultation, BGE agrees that a PAR of 1MWh should apply from I-SEM go live. Balancing responsibility is in line with EU market integration objectives. A shorter PAR gives a

clear balancing signal compared to a larger PAR which may ultimately weaken balancing responsibility signals the larger it gets. A smaller PAR may also help price forecasting/ predictability which would be welcome in the transition to the new more dynamic market. Furthermore, it is likely that the Net Imbalance Volume (NIV)/ unflagged actions will be relatively low on average in I-SEM and a larger PAR may inhibit price formation leading to more regular application of administered prices which are undesirable from a consumer perspective. Finally, a smaller PAR in BGE's view better incentivises day-ahead and intraday market trading with positive impacts for liquidity in these markets and more competitive prices for the end consumer.

3.3. Pricing Materiality (PM) Threshold parameter

BGE agrees with the proposed PM Threshold parameter of 15% and the basis on which it was assessed with reference to a Settlement Reallocation Threshold of €15,000. 15% is considered pragmatic in light of its likely minimisation of ad hoc settlement reruns which is favourable from an administrative burden perspective. BGE also believes that the 15% PM Threshold should help ensure that the cost of undertaking a settlement rerun and recalculating the ISP price does not outweigh the benefits.

4. BM Scheduling and Dispatch Parameters

4.1. LNAF – Long Notice Adjustment Factor

In principle, BGE is strongly in favour of an LNAF and while we agree that LNAF should be set to zero for go-live, BGE wishes to see it implemented in I-SEM as early as possible. Importantly however BGE requests a commitment that the review of operational data from I-SEM should commence 6 months after go-live (and by the latest January 2019) and that implementation of positive LNAF factors should be completed by the end of 2019.

The predictability of the potential effect of LNAFs without operational data of I-SEM is limited which is undesirable to TSOs and market participants alike. Significant further modelling and consultation on inputs and results will be necessary in late 2018/ early 2019. This modelling will need to take account of actual market participant practices, e.g. complex bidding occurs now in the DAM but this will likely change in I-SEM as will the real-time dispatch model and its outcomes when for example DQs will be set off units' physical notification levels. Furthermore, given the reliance of the modelling in the consultation paper on actual costs and unit notification times, BGE believes that the scenarios (base plus 10%, 20% etc.) should be re-assessed after the initial LNAF values are re-determined based on I-SEM operational data. It may for example be more appropriate to test smaller scenario values such as 5%.

Finally, the consultation results show that the binding nature of constraints increase and the probability of reserve scarcity and load shedding events under abnormal system conditions increase when certain LNAFs are applied. This is undesirable from a consumer perspective not least in the context of the potential for increased Administered Scarcity Pricing (ASP) events. This supports the fact that appropriate LNAFs would be better determined on the basis of I-SEM operational data.

Notwithstanding the need for further LNAF analysis with I-SEM operational data as outlined above, BGE has a number of clarification requests and further comments on the consultation's analysis:
a) Regarding the LNAF curve:
   o Please confirm whether the LNAF curve is a) intended to apply per notice time grouping or b) whether the notice time groupings are just used to inform the values for LNAF in relation to the notification time?
   o If it is the case that the LNAF curves are to apply per notice time grouping, BGE has concerns around the impact on the signal to units to improve efficiencies and reduce notice times/ costs where possible. In this context, BGE seeks clarity on the statement in the consultation (section 2.2.3.1) that "LNAFs for Notice Time Groups whose prices are smaller than those of previous Notice Time Groups should represent an increased value which is a linear interpolation between the last Notice Time Group with a higher price, and the next Notice Time Group with a higher price than that". Where the LNAF curve is LNAF (y-axis) versus notification time (x-axis), it is unclear whether this "linear interpolation" is from the values at a specific notification time or from the top of the stepwise LNAF curve. If it is the former (notification time) this would provide units the ability to improve their availability to the TSO for Dispatch by changing their costs and notification time where possible. If the linear interpolation is however from the maximum notification time for each notice group, then this may have negative impacts on encouraging units to respond in terms of unit efficiency improvements and reduction of costs and/or notice times?

      ○   Related to this issue, BGE also requests clarity on how often the TSOs plan on re-calculating the "average price" of notice time groupings?

   b) Finally, BGE agrees that units with zero prices should be excluded from the methodology.

4.2. SIFF – System Imbalance Flattening Factor

BGE does not agree with the proposal that SIFF may be a binary factor of 0 or 1. BGE's preference is for a graduated SIFF which is in line with proposals that have appeared in imbalance pricing documentation to date such as Rules Working Group documents and in the draft Balancing Market Principles Statement. These documents have continuously referred to SIFF as a "stepwise curve", the values of SIFF on the curve being based on a pre-determined relationship with the levels of System Shortfall Imbalance Index (**SSII**).

BGE believes that a binary SIFF undermines the role of or need for SIFF in the first place. This is particularly evident from the start-up cost equation as outlined in the Consultation[2] which defines:

Start-Up Cost in Scheduling Run = submitted start up cost*[1+(LNAF*SIFF)]

Under this equation, if SIFF is a binary factor the LNAF would not vary with system imbalance; LNAF would simply either be active or not active. The only part of this equation that would actually influence how start costs are seen in the BM is the notification time. BGE believes however that the system imbalance and level of energy versus non-energy actions contributing to the imbalance should be a factor in the level of LNAF applied (to best achieve the objective of favouring shorter notice units over longer notice units). A binary SIFF factor would not allow for this in our view.

In the case that a binary SIFF factor applies, BGE believes that it follows that the SSII should also be binary. Should this be the case (i.e. should SIFF and SSII both be deemed binary) it will be necessary for market participants to have insight into a range of SSII values and at what point on the range the SIFF factor would become binary.

While BGE is in favour of a graduated SIFF, in line with our views on LNAF above, and for consistency the scope to adjust SIFF after I-SEM go live should be retained. The appropriate SIFF values for I-SEM would be best determined on the basis of I-SEM operational data which like the LNAF should be assessed by the latest January 2019 with full implementation of positive SIFF values occurring by the end of 2019.

4.3. SSII – System Shortfall Imbalance Index

As noted above under section 4.2, BGE is in favour of a graduated SIFF as opposed to a binary SIFF the latter which undermines the role of SIFF in the first place. A binary SIFF would imply a binary SSII should apply but in BGE's view it is critical that system imbalance levels have a role to play in the appropriate value of LNAFs and their application. In this regard, BGE believes that like LNAF and SIFF, a zero SSII value for go-live is appropriate but that a review of I-SEM operational data should occur by January 2019 with implementation of adjusted values for LNAF, SIFF and SSII being implemented by the end of 2019.

4.4. Daily time to fix SSII

With regard to this timing BGE requests confirmation on whether the "lock down" in timing here means a lock down on the parameters for the trading day 11pm – 11pm?

As outlined above, BGE is not in favour of a binary SIFF factor, preferring instead the graduated SIFF approach. If however SIFF is binary, we submit that the lock down should occur at least before the first IDM auction or earlier if possible.

Under the graduated approach however, BGE believes that it is more appropriate that the parameters are locked down as late as possible given that various factors such as wind and demand can vary hugely throughout a day impacting SSII levels. Ideally, under the graduated approach once historical I-SEM data is available, modelling analysis would be carried out to determine an appropriate lock down time that is suitable depending on the level of variation in imbalance volumes over the day. It may for example be suitable to re-assess the parameters on a

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[2] Page 8

twice daily (or more) basis if large variances in imbalance volumes over the course of the lock down period is seen.

5.   Summary and conclusions

In summary, BGE's key concerns in this consultation relate to the DMAT parameter and Scheduling & Dispatch parameters, both of which in BGE's view require further assessment before and after go-live, respectively. BGE's views on the various parameters consulted on can be summarised as follows:

i.   ***Response Period Duration Parameter***: BGE supports a 5 hour period as outlined as it is practical from a finance processes perspective. The time should be in addition to the time it takes to receive a credit cover notice and be applied within working hours 09:00-17:30;

ii.   ***PCAP and PFLOOR***: BGE requests confirmation that the BM PCAP applies to energy-only revenues in which case a €10,000/MWh PCAP is acceptable. Otherwise trading distortions may arise. A PFLOOR set closer to the "zero" side of €9,999/MWh should apply also for the avoidance of trading distortions;

iii. ***DMAT***: BGE believes that a modelling as opposed to theoretical assessment approach for determining DMAT should be carried out. The DMAT volume should be less than 0.17MWh considering that the proposed PAR is 1MWh and that a 0.17MWh DMAT applies in BETTA whose market scale is considerably larger than I-SEM's scale. Confirmation that ramping volumes will be flagged as "non-marginal" in the pricing process is also sought;

iv.   ***PAR***: Based on the consultation analysis and results, BGE supports a PAR of 1MWh as it: is in line with the direction of EU legislation; gives a stronger signal for balancing responsibility than a larger PAR; should help price predictability; should result in better price outcomes for consumers by minimising potential administrative pricing and enhancing ex-ante market liquidity;

v.   ***Price Materiality Threshold***: BGE agrees with a PM Threshold of 15% on the basis of the consultation's analysis; due to the likely minimisation of ad hoc reruns at this level; and due to it being likely to ensure the cost of settlement reruns and price recalculations do not outweigh the benefits;

vi.   ***Scheduling & Dispatch parameters***: BGE strongly supports implementation of an LNAF factor as early as possible but believes a zero factor is suitable for go-live given the lack of operational data on which to accurately base LNAFs. BGE prefers a graduated SIFF. We do not agree with a binary SIFF which undermines the need for SIFF in the first instance. A binary SIFF would not allow for system imbalance levels (and the levels of energy versus. non-energy imbalances) to appropriately influence the application of LNAF factors which is contrary to how BGE foresaw SIFF being applied to date. Finally the daily fixing of the SSII would be best informed by I-SEM operational data and under a graduated SIFF/ SSII approach the later the timing is locked down the better, given the influence of various factors on imbalance volumes over the course of a day. Scope should be retained to determine the timing at a later stage at which point it may also become clear for example that locked down values should be assessed twice daily.

Overall BGE believes there are many moving parts to the scheduling & dispatch parameters and that a full modelling review based on I-SEM operational data should be undertaken at the latest by January 2019 and that implementation of positive values should occur by end 2019.

I hope that you find the above comments and suggestions useful and please do not hesitate to contact me should you have any queries on the above.

Yours sincerely,

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Julie-Anne Hannon
Regulatory Affairs- Commercial
Bord Gáis Energy

{By email}