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Dear Clive, Jody

# **RE: CPM Medium Term Review Work Package 6 Onwards**

### **General Introduction**

The proposed intended purpose of this review is to assess whether the current design of the Capacity Payment Mechanism (CPM) in the Single Electricity Market (SEM) could be improved to better meet its original objectives. Recognising that the original objectives are wide-ranging in trying to reach a balance between; incentivising capacity availability and investment while ensuring that the mechanism is fair, not open to gaming and relatively simple in its application, it is Bord Gáis Energy's (BG Energy) view that the CPM broadly meets its stated objectives.

Evidence from the market over the past 3 years' shows that capacity availability has increased and there is no strategic profiling of generation availability between peak periods. This is supported by Poyry's analysis which found the CPM to deliver in the context of its competing and high-level objectives. They also find that the current mechanism will meet its objectives in future years with increasing levels of intermittency.

Therefore, considering that investments have been made and are being actively considered on the basis of the current CPM, BG Energy does not believe that changing the structure of the current methodology would deliver any benefits to the market. Instead, the changes as proposed in the consultation paper will only act to increase volatility and therefore risks without actually changing the provision of capacity in the market. Furthermore, European initiatives for regional integration are pressing for the development of a day-ahead price in the SEM to accommodate Day Ahead Market





Coupling. Any movement to greater uncertainty in capacity payments and a greater proportion of ex-post pricing would be inconsistent with these goals and obligations.

That is not to say that certain aspects of the CPM cannot be improved to better provide efficient signals in the SEM. The main issues that have been consistently mooted are that of stability (which was examined in a previous work package) and the provision of long-term investment signals. Improvements in the latter would be better achieved through the implementation of testing and penalties, as opposed to the introduction of structural changes and greater uncertainty in the CPM.

BG Energy's views on the specific proposals presented in the Regulatory Authority's consultation are outlined in the sections below.

### 1. Treatment of Wind

Recognising that increased levels of wind will impact on the future generation mix in the Single Electricity Market (SEM) for any given trading period, it is inaccurate and misleading to suggest that this will automatically curtail the effect of the CPM. As wind generators are only paid on their actual output, they are implicitly allocated a capacity credit. This feature ensures that only capacity that *can actually* and *is actively* providing benefits to the system will be rewarded accordingly. That is to say, that regardless of the level of intermittent generation on the system the performance of the capacity mechanism will not be jeopardised. Indeed, this is confirmed by Poyry's analysis in Section 3 of their report.

Stemming from the SEM Committee's previous analysis on 'the Treatment of Different Technology Types', it is suggested that wind generation has been and is overcompensated in the SEM and that a movement to a larger proportion of ex-post payments would provide a better balance. Previous studies suggest that this 'overpayment' is valued at circa  $C_{3.4}$  million in a given year. Considering the overall value of the pot and its contribution to the market, this 'over-payment' is considerably less than the risk that would be faced by generators in a CPM with a larger ex-post payment weighting. On a crude cost/benefit basis, the solution would be disproportionate to the issue at hand.

In summary, wind investments were made and business cases developed for Gate 3 on the basis of the current CPM. Changing the treatment of wind would not be 'fair' and



could indeed put the achievement of the market's renewable targets at risk. It could also add costs to the market and customers through its impact on the PSO pot, which could increase to offset reductions to renewable generators in receipt of REFIT payments. It would be especially discriminatory considering that a number of conventional plant remain in the market and receive payments for capacity that is essentially valueless as it cannot be called upon when needed. To this end, BG Energy would not be in favour of the introduction of a separate pot for wind generation or the discriminatory treatment of wind generation within the SEM.

### 2. Ancillary Services

From an economic point of view, system security and adequacy are two distinct issues. Adequacy, which capacity payments aim to address, insures against shortages whereas security, which ancillary services provide, is necessary for the sustainability of the system in the long-term and short-term. A system with an abundance of capacity still needs ancillary services. In bundling the two issues together there is a risk that the signals for either or both will be diluted. On this basis, BG Energy agrees with the SEM Committee and its view that the CPM is not the appropriate mechanism to incentivise flexibility in the SEM.

BG Energy has consistently contended that incentives and rewards for ancillary services – different types of flexibility and reserve – should be provided separately to energy and capacity payments. In the same way that much time and effort has been expended on developing distinct markets for energy and capacity, a similar structure and effort is needed to develop a robust reserve market. The current process, whereby ancillary services are developed and procured in an ad-hoc and bi-lateral manner, is inadequate and will not deliver the needed services and products to securely sustain the system in the long-term. The substantial rise in constraint costs for this year and the coming year clearly indicate the paucity of the current provisions and the importance of developing a robust market in the near future.

The System Operator study on 'The Facilitation of Renewables' should provide the basis from which the System Operators can progress a plan and provide analysis on the reserve and flexibility requirements for the system in the future. This will provide a blueprint for investors and generators to assess how these ancillary services can be provided and how they will be valued. The separate provision of ancillary services does not necessarily infer that added costs will be levied on the customer. As



previously outlined, ancillary service payments will be funded largely through reductions in constraints payments, leaving the customer cost neutral while benefiting from greater system security.

## 3. Timing and Distribution of Payments

As stated at the outset, the level of capacity availability in the SEM has improved since 2007 with a marked improvement in outages and the connection of a number of new conventional and renewable generators. On this basis, it seems reasonable to conclude that the CPM, as it is currently designed and applied, is successfully achieving its core objectives. Capacity is available when it is most needed and outages are planned efficiently such that the availability of capacity is optimised, while also ensuring that generators can reasonably predict their revenue streams within a given year.

A shift towards greater ex-post payments will not achieve this balance to the same extent. Ex-post payments do not signal when capacity is needed, it instead rewards capacity that is available during the periods of tightest margin – whether forecasted or not. This firstly could make gaming more fortuitous for portfolio players but also erases the mechanism of **signalling** when capacity is most needed.

In their finding that the relationship between average capacity payment and ex-post capacity margin is weak, Poyry assumes that this relationship has a role in incentivising capacity availability. This is a flawed assumption from a practical point of view and is not a problem in itself. It is only a problem, if the RAs find evidence of capacity being withheld. Given that a larger proportion of the pot is distributed exante, generators know when capacity is forecasted to be most valued and generators will make themselves available at these times. Moving towards a greater distribution of ex-post payments will actually erode this signal as tight margin events will only be flagged after the event, at which time generators will not be able to respond.

Finally, the RAs and Poyry seem to conclude that rebalancing towards a greater proportion of ex-post payments has limited impact on participants while improving the reliability of the system and providing long-term signals for investments. Considering that participants will not know in advance when capacity will be most valued and also the volatility in forecasting revenue streams and therefore the associated risk, BG Energy cannot concur with Poyry's and the Regulatory Authority's conclusion. Stability is very important in assessing the cost of financing in the SEM,



as Poyry recognise in their report with reference to the impact of fluctuations in the annual BNE calculation. Moving to greater ex-post payments would drive similar uncertainty for generators. Again, on a cost-benefit comparison, BG Energy does not believe that the perceived benefits are material and indeed will be outweighed by the added costs and risks it will place on participants.

In summary, given that one of the principle reasons for creating a capacity market was to ensure that generators could be guaranteed to recover their fixed costs, the magnitude of the risk in changing the distribution of the payments far outweigh the perceived benefits. In short, BG Energy does not agree with a shift towards a greater proportion of ex-post payments on the basis that:

- 1) There has been no evidence of the fact that there is a problem in the practical sense. That is, there is no evidence that capacity is currently being withheld which a stronger relationship between prices and margin would release;
- 2) The current ex-ante distribution correctly signals general periods where availability is valuable (winter versus summer, weekdays versus weekends, peak versus offpeak hours) and it would be detrimental to dilute this signal by putting more emphasis on an ex-post component to which generators cannot respond by definition (it comes after the event);
- 3) A greater proportion of ex-post payments could facilitate the development of gaming/strategic withholding of capacity by portfolio players, and
- 4) It would act as another barrier to interconnector trading by further reducing day ahead price certainty (this risk is discussed in greater detail below).

### 4. Treatment of ICs

As outlined above, the increased volatility in capacity revenues will increase the risk profile for market participants, however, the magnitude of the impact of this variability and risk on interconnector users does not appear to have been captured by Poyry in their analysis.

Increasing the ex-post element of the CPM will make it more difficult to forecast generator capacity payments when bidding on the interconnector<sup>1</sup>. This will either

<sup>&</sup>lt;sup>1</sup> The TSOs, who are in the best position to forecast ex-post LOLP given their access to the most accurate and timely data, have struggled significantly to predict LOLP accurately. Mean absolute percentage errors of between 1925% and 3964% have been found in forecasts of D-1 and D-30 LOLP forecasts in the past. It is clearly a complex process which participants cannot be expected to replicate or take the risk of trying to replicate.



increase the cost of bidding on the interconnector by substantially increasing the deadband or it will discourage parties from using the interconnector. Given the impetus in the development of the interconnectors and market arrangements to facilitate greater usage of the interconnectors and the value that they are anticipated to bring to the SEM, it seems counterintuitive to introduce other changes in parallel which will act as a barrier to interconnector trading.

The RAs have recently published a cost benefit analysis on the connection of greater interconnector capacity and the introduction of intra-day trading in the SEM to increase trading volumes on the interconnectors. A re-run of that cost benefit analysis with a significant increase in the deadband of  $\epsilon_{10}$ /MWh previously used would be instructive to illustrate the magnitude of the impact of rebalancing on interconnector trading and its assumed benefits for the SEM.

Finally, a movement to a greater proportion of ex-post pricing would impede on the Regulatory Authorities' work to progress Day Ahead Market Coupling as it would hamper the markets ability to develop a firm day ahead price. This in turn will devalue the benefit of interconnection as envisaged by the Regulatory Authorities and the European Commission in their endeavours to create harmonised market arrangements.

### 5. Penalties

BG Energy has consistently argued that the SEM does not have sufficient exit signals to both ensure that customers are getting value for money and that signals are sent to new investors. While recognising that certain older plant still provide a level of security to the system, BG Energy believes that a penalty mechanism will provide a balance in rewarding efficient, useful capacity (whether old or new), while providing an exit signal to inefficient capacity.

The effectiveness of such a penalty mechanism is however dependent on certain provisions, such as:

- The implementation of a robust testing and monitoring regime, and
- Achieving a balance between the risks penalty charges place on generators and the benefits of providing an efficient exit signal.



Firstly, a penalty regime will only be as effective as the testing and monitoring regime which accompanies it. Currently, generators are rarely tested to validate their availability, therefore, even if a penalty regime was introduced there would be limited risk for generators disingenuously declaring availability.

In order to effectively test the actual availability of generators the test should be; *relatively frequent* (i.e. at least twice a year so that all generators can reasonably expect to be tested throughout the year); *robust*, so that it tests the genuine capabilities of the generator; and *onerous* to ensure that all capacity receiving payments can reasonably contribute to meet the varied requirements of the system<sup>2</sup>.

Secondly, in terms of the penalties which should be applied to a generator that fails any test, BG Energy is of the view that the proposals put forward in the consultation paper are overly onerous and would not balance the risk/reward trade-off of the regime. Given that certain generators almost solely rely on capacity payments for revenues, a penalty of 3 months capacity payments, or 25% of their revenues for the year, is excessive. BG Energy, instead proposes that a generator who fails a test would not receive capacity payments until such time as the unit can pass the test – following submission of a re-test request to the TSO.

Combined, such a penalty and testing regime should ensure that only capacity that is actually contributing towards adequacy on the system is being rewarded and should also act as an exit signal for inefficient and ineffective capacity. This in turn will ensure that customers, who ultimately pay for system adequacy, are receiving value for money and are not paying for surplus and ineffectual capacity.

#### 6. New Entrant Pot

The capacity pot was initially designed to provide stability of prices (reduce risks) in the market and as such to incentivise investment in the SEM. This stability should be given to all generators in the market and not just new entrants. Therefore, BG Energy

 $<sup>^2</sup>$  With these objectives and principles in mind, BG Energy proposes the following test: a) start the generator and run it up to Max Gen, followed quickly by ramping it down to Min Gen; b) run the generator at Min Gen for a number of hours and then ramp it back up to Max Gen, and c) after the second ramp up, shut the plant down and then restart it. Ideally, this test should be conducted over two days during which time the generator will be paid its bid price. Following the test, the generator should be included in the market schedule at its state (hot, warm or cold) prior to the test. This should minimise the impact of tests on the economic running of the market and will ensure that the generator is not overtly disadvantaged by the testing regime



does not see merit in or agree with the proposal to positively discriminate in favour of new entrants.

In terms of providing signals for investment, this would be implicit in the current design if the proper exit signals were implemented. As outlined in the previous section, a robust penalty regime would provide an effective exit signal to generators who are not actively and efficiently contributing towards system adequacy. This in BG Energy's view is a more appropriate, transparent and equitable means of providing investment signals as opposed to simply shifting payments between generators – from incumbent generators to new entrant generators.

### 7. Supplier Charges

The current mechanism of levying supplier charges is a relatively cost reflective mechanism of charging suppliers while reflecting to an extent the impact of demand at periods of tight margins. Metering and billing systems would need to be implemented to provide for time of use tariffs if the mechanism was to become fully cost reflective.

Notwithstanding this, suppliers are exposed to certain risks in terms of forecasting demand and subsequently allocating payments to the relevant party. Recognising the general volatility in the current environment, which makes forecasting a more challenging exercise, BG Energy suggests that the system operators and market operators reforecast 'year to go' (YTG) demand on a monthly basis and publish this updated information to the market. For example, the initial demand forecast for this year has been out by approximately 10%, it would be useful if the system and market operators were to update the YTG forecast accordingly for the remainder of the year. This would allow suppliers to more accurately price the cost of capacity to its customers and ensure that all suppliers are equally informed about the impact of changes in demand on capacity costs for any given period.

#### **Summary and Conclusions**

The current CPM structure broadly meets and balances its high level objectives in providing revenue stability to the market while also rewarding those who provide capacity during periods of tightest margin. BG Energy does not believe that any changes to the current structure would provide material benefits to the market relative to the risks it would create for generators. BG Energy therefore, does not support any



of the proposals to change the manner in which payments are calculated and distributed between different generators in the market.

Nevertheless, certain improvements could be made which would improve the effectiveness of the CPM while ensuring that risks and volatility are minimised:

- A penalty regime would introduce a more effective exit signal to the market and ensure that only capacity that is actively able to contribute to system adequacy is rewarded;
- Monthly re-forecasting of 'year-to-go' demand by the TSOs and SO would better allow suppliers to price and allocate capacity charges more effectively.

In terms of ancillary services, incentivising and rewarding flexibility is a distinct issue of system security as opposed to system adequacy (which is what the CPM was designed to provide) and therefore should be a separate revenue stream to the CPM. Recognising the RA's commitment to providing value for money, this added revenue stream will not increase costs to customers and will be funded through the imperfections pots, specifically through reductions in constraint costs. Any proposal to section part of the CPM for ancillary services would reduce the incentives and signals for both services and therefore the ability of the system to meet its future requirements.

BG Energy would welcome an opportunity to discuss the comments and proposals outlined above in greater detail. In the meantime, please do not hesitate in contacting me should you have any comments or queries.

Yours sincerely,

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