

Submission by Bord na Móna Energy Ltd.

on

Single Electricity Market

Scope of CPM Medium Term Review

SEM-09-035

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Bord na Mona Energy Ltd, (BnM), welcomes the opportunity to respond to this consultation process on the scope of the Medium Term Review of the SEM Capacity Payments Mechanism. The capacity payment mechanism is a fundamental feature of the SEM design and BnM has been consistently supportive of the need for a Capacity Payment Mechanism (CPM). We have repeatedly called for the robust implementation of the mechanism as it plays a key role in both providing revenues to cover capital and fixed costs not covered by payments for energy and in signalling the timely entry of new generation capacity onto the system as it is required. Notwithstanding this fact we agree that a review of the mechanism based on experiences to date is now appropriate.

Bord na Móna have participated in a number of previous consultation processes relating to the Capacity Payments Mechanism, particularly in relation to the setting of the Annual Capacity Payment Sums. There have been a number of recurring issues with the ACPS determination methodology used to date which have caused particular concern in relation to the volatility and perception of regulatory risk associated with the mechanism. These issues are of particular concern to potential developers of generating plant which have low projected load factors, and will rely heavily on the CPM for their revenues.

Previous consultation processes were often constrained to specific topics such as setting the BNE price, or addressing the volatility in specific aspects of the process, (e.g. WACC). It is important and timely that this review takes a more holistic approach, with a view of the big picture of what type of power system that we wish to achieve in the medium to long term, and what is the appropriate market structures required to achieve this portfolio. In this regard, whilst the focus of the review is primarily on the CPM itself, BnM feels that it should not rule out considering alternative structures in other areas of the market, such as the provision of ancillary services.

This response paper lists BnM's views on the key objectives for the CPM to achieve the level of new investment in the appropriate plant mix. It goes on to respond to the specific consultation questions raised in Section 6 of the consultation paper, with the response framed around the delivery of the key objectives for the CPM.

Key Objectives of the CPM

(1) Security of Supply

The number one priority for the CPM is to ensure the development of a portfolio of generation assets that can deliver a safe and adequate supply of electricity to consumers. The estimation of generation adequacy should allow for an appropriate reserve margin for a modern developed economy taking into consideration the scale of the market, interconnection with other markets and the level of intermittent generation in the portfolio. It should also consider the question of diversity of generation, in terms of the different types of technology, fuel types and the balance between indigenous and imported energy sources.

(2) Signal for Investment

The CPM should allow for the rational development of appropriate new generating plant and signal the retirement of end of life cycle plant in a timely manner. The design of the current mechanism places the same value on capacity offered to the market, regardless of the flexibility of that capacity. New generation units are inherently at a disadvantage in relation to their cost base when compared to units which have fully recovered their capital costs. This problem with the investment signal has been exacerbated in recent years by the extremely tight reserve margins, of less than 5% over peak demand, which has failed to deliver new capacity during periods when the power system in ROI was struggling to meet demand. From the potential developer's perspective, the CPM needs to give a more sophisticated treatment to the valuation of capacity offered from new generation, to ensure that reserve margins improve to acceptable international norms, without causing undue expense to the electricity consumer

(3) Value for money

BnM fully accepts that a key objective of the CPM should be to ultimately lead to positive outcomes to the consumer with respect to the absolute level of tariffs and their predictability in the medium term to long term. In this regard, the CPM significantly reduces the volatility of prices where reserve margins are tight, compared to an energy only market design.

It is important to consider this issue in relation to the CPM over a longer timeframe than on a year to year basis, in the context of the previous objective on the use of the mechanism as a signal for investment and divestment in the market. The approach to date has been based on very tight reserve margins, which has not resulted in the replacement of the older plants with lower availability profiles with new plants, which be capable of achieving significantly higher levels of availability. BnM are of the opinion that though this may act to minimise the cost to the consumer in the short term, it will ultimately lead to higher consumer prices in the medium to long term, if appropriate new generation is not delivered by the market.

There are a number of other objectives listed by the RAs in relation to fairness, simplicity and susceptibility to gaming, which are all important principles, but should only be considered where the optimum balance between the three priority objectives listed above has been achieved. However, the medium term review must also address the issue of volatility which is an outcome of the current approach to setting the pot on an annual basis. This poses significant challenges in terms of assessing the risk profile of a new project and has a direct impact in terms of trying to finance the type of flexible plant required on the system. The Capacity Payment Mechanism (CPM) should be predictable enough to give a reasonable level of certainty to project developers in terms of projected revenue streams. This is not achieved under the current mechanism as the pot is calculated annually and has been subject to regular changes by the regulatory authorities. BnM is of the view that the timeframe for calculating the pot, and the associated BNE fixed costs, should be fixed in the medium term, in order to match the typical tenor for financing arrangements.

Response to specific consultation Points

(1) Assessment of CPM in the SEM

The paper suggests a number of areas where the CPM should be evaluated using the historical data available since the commencement of trading in the SEM. It is worthwhile looking at this data to see what can be learned, particularly in relation to the shorter term signals for incentivising availability at times of tight reserve margin. It is harder to see what can be gleaned in relation to longer term patterns, relating to investment signals or the type of plant being planned or built, as these will interact with other signals from government policies, the investment climate, equipment price cycles, etc.

BnM believes it is important to have a discussion on the way the generation portfolio will develop over the next 15-20 years, with respect to demand growth, the delivery of the Government's RES-E targets, and the mix of complementary conventional generation which will evolve to support it. This picture need not be definitive in terms of timing of entry or exit of new generation, but should give a snapshot of a credible portfolio or alternative portfolios based on reasonable assumptions on demand, wind penetration, plant mix, etc which can be agreed by participants in the consultation. This scenario or scenarios could then guide the assessment of the CPM in terms of the fitness of the mechanism to deliver the type of portfolio envisaged.

(2) Impact on CPM on customers

BnM have no specific comment to make on the assessment of the historical impact of the CPM to date on customers. It is important that any assessment, both in relation to generators, supply companies and customers take a longer term view in determining the impacts of the CPM, rather than the current methodology which looks no further than twelve months at a time.

(3) Incentives for Generators

BnM believes that this is a key area that should be discussed in the medium term review. At a qualitative level, we are strongly of the view that the availability offered by generating plant capable of regular starts, fast start times and high ramp rates is inherently more valuable to the system than other less flexible form of generation, given the ongoing increase in installed wind capacity on the system.

The key question that arises is how to define the flexibility of a plants, and to avoid over-incentivising plant because of its flexibility, where, for example, it is more appropriate to signal the entry of a more efficient but less flexible plant to operate in a mid merit role. One option that could be considered is to change the balance between the amount of money disbursed through the CPM and the Ancillary Services markets. This is discussed further in point 11 below.

As discussed in the earlier section on CPM objectives, if the role of the mechanism is to generate signals for investment and divestment, it will have to differentiate between the type of capacity required and reward it according to it's value to the system. If

Ancillary Service payments or some other mechanism is more appropriate to do this, then the review of the CPM should consider the implications for the current structure of the CPM and its relationship with the alternative mechanism.

(4) Distribution of Capacity Payments when Capacity is needed

At a high level, the key to improving the availability of plant is to replace older under performing plant with new plant capable of offering higher levels of availability to the system. It is therefore more important to give efficient signals in terms of the timeframe for investment signals than the intra year and intra month signals. It will be interesting to see what influence the weightings of the current long and short term signals have on the availability of plant during periods of tight reserve margins, based on the historical analysis of the CPM to date as proposed in the consultation paper. Any proposed changes that are suggested to the current disbursement must primarily ensure that the disbursement of payments does not act to stifle the economic signal for the timely delivery of new flexible plant, and the closure of end of life units.

(5) Capacity Requirement Calculation

This is a key factor in the determination of the Annual Capacity Payment Sum, and is the measure that determines the level of reserve margin which the market can bear. BnM has consistently stated in previous responses to consultation on the CPM that the level of Deemed Capacity Requirement calculated in the three capacity years to date has been too low, representing a reserve margin in the range of 3.5% - 5% over peak demand.

It is a cause of particular concern that this quantity factor of the ACPS has not been subject to annual consultation as is the case for the cost factor, i.e. the BNE peaker price. It is accepted that the methodology used is more complicated and requires specialised software and skill sets to perform the generation adequacy calculations. There is a lot of scope however for interested parties to comment on the inputs to the modelling, such as the demand profile, wind power series and critically, the assumptions on unit availabilities.

In the case of unit availabilities, BnM believe that the principle of setting very high and unattainable levels for unit availability, as has been the case to date, is counter-productive, as the resultant Deemed Capacity Requirement indicates that no new capacity is required. The levels of availability proposed cannot be achieved in reality due to the age profile of the units in the current portfolio. The under-estimated Deemed Capacity Requirement therefore acts to block the new investment that ultimately will act to improve the availability of the portfolio as a whole. BnM would welcome a bench marking exercise as part of this review process, of international levels of unit availability, taking into account the age profile and unit types. BnM accept that the basis of the setting of unit outage rates should not be to reward sub – standard performance; however, the target should not be so ambitious as to deter or delay the delivery of new plant which can improve overall generation adequacy.

It would also be useful as part of the review to get some further insight into the methodologies and algorithms used by the TSOs in determining the Deemed Capacity requirement. The TSOs have held workshops in relation to other complex areas, such as Ancillary Services, locational signals, etc, which have proved very informative. A similar approach would be very useful on this topic also.

(6) WACC

The issue of WACC has been extensively discussed by BnM and other parties in previous consultations. The issue of the volatility in WACC was specifically addressed in the consultation process on last years BNE price, although no new measures were adopted. What was striking in last years decision was the fact that resultant cost of capital was deemed to fall in a market where the cost of finance was rising at unprecedented levels. It calls into question the CAPM approach used in the WACC determination, particularly in times of an international financial crisis.

An interesting discussion point arose at the recent workshop on the methodology for the 2010 BNE price setting, around the developing the financial model for the BNE using a discounted cash flow (CDF) approach, rather than the WACC approach that has been used to date. This model structure would be more intuitive from most developers perspectives in terms of the financial analysis that would be performed for projects, although the key challenge would change to the determination of an appropriate hurdle rate for a rational investor in the SEM. It would be useful to explore the issues in trying to adopt such a model.

(7) Infra-Marginal Rent

This is another factor that has been discussed extensively in previous consultation processes. The key problem of correcting for infra-marginal rent is the potential volatility and risk that it adds to projects. The levels of infra-marginal rent is particularly sensitive to the tightness of the capacity margin, leading to the perverse case that the ACPS is likely to fall in years where new capacity is needed.

The risk associated with the Infra-Marginal Rent estimation is exacerbated by the difficulties associated with the market model currently used by the SEMC in demonstrating that it can give an accurate forecast of the market in terms of prices and market schedule quantities, particularly at peak periods. This process and the associated problems encountered to date has not inspired confidence in project developers and has resulted in increased levels of perceived risk associated with projects, particularly those dependent on capacity payments for the bulk of their revenue. This has a direct impact on project financing and thus overall project costs.

It is also important that the estimation of revenues earned from Ancillary Services be developed in a more transparent manner, as BnM believe that the levels of revenues projected over the last three years have been high, especially with respect to the recently published draft harmonised AS rates.

(8) Exchange Rate in the CPM

BnM welcome any analysis on the treatment of currency in the CPM or other sectors of the market which can improve the efficiency of currency management costs for all market participants

(9/10) Treatment of Wind/Interconnector in the CPM

The principle that applies to all special category units is that they should be entitled to remuneration from the CPM equivalent to the contribution they make to generation adequacy, and allowing for any particular incentives that may be decided for adding increased flexibility to the system as discussed in point 3 above.

The December 2008 paper (AIP-SEM-08-177) indicated that wind energy is over-compensated in the CPM. With the levels of wind capacity connecting in the market set to increase dramatically over the next number of years, it is important to ensure that any over-payment does not act to block the development of the complementary conventional generation needed to maximise the electricity generated from this wind capacity. This particular issue needs to be the subject of a more robust assessment than heretofore.

(11) Ancillary Services

As has been discussed in previous sections, it is clear that the future generation portfolio, including a large proportion of variable and intermittent generation, will require increased levels of reserves and flexibility from conventional generation units. The TSOs have made it clear that the standards for the provision of such services from new and existing generation plant will be increased.

BnM believes that the option of re-balancing the amounts of money which are disbursed through the CPM and Ancillary Services mechanisms could be used to more efficiently target the type of new generation that can offer services needed by the TSOs for the optimal running of the transmission system. The key question that will arise is how to define the services which the TSOs require and how to place an appropriate valuation on those services which will allow the type of plant required to be developed, without over-incentivising un-needed services or plant types.

(12) Other aspects of the CPM

One issue that has been raised by the TSOs in a separate consultation exercise is the issue of locational signals for plant, specifically TLAFs and TUoS charges. TLAFs have a very direct affect on a unit's CPM revenues, as Eligible Availability (EA) is loss factor adjusted in the disbursement algorithm. The key issue with this signal is that TLAFs can change significantly over the lifespan of a unit, due developments of new generation or transmission infrastructure beyond the plant owner's control, which can significantly adversely affect the revenues for the unit, again adding to the uncertainty and the risk profile of the new project development.

BnM believes that the location signals, and specifically TLAFs in relation to the CPM are not an effective signal for the location of new plant, and only acts to increase the

risk and hence the costs of new generation. BnM suggest that this point could be considered as part of the CPM medium term review process.

For and on behalf of
Bord na Mona Energy Ltd

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