

Submission by Bord na Móna Energy Ltd.

on

Single Electricity Market

Fixed Cost of a Best New Entrant Peaking Plant

Calculation Methodology

SEM-09-023

Fixed Cost of a BNE Peaking Plant Calculation Methodology Consultation

Bord na Mona Energy Ltd, (BnM), welcomes the opportunity to respond to this consultation process on the calculation methodology for the fixed cost of a BNE peaking plant. The Capacity Payment Mechanism is one of the most important features of the SEM market design and plays a key role in signalling the timely entry of new generation capacity onto the system as it is required.

Bord na Móna have argued consistently that this mechanism needs a more transparent and robust methodology for the calculation of the Annual Capacity Payment Sum, (ACPS), and believes that it is timely to revisit the existing methodology in some detail. In this regard, we welcome the proposal for a more extensive evaluation of the mechanism in the autumn, although it is disappointing that this could not have been programmed to occur before setting the 2010 ACPS this summer. It is particularly welcome that the RA's have signalled their intention to consider the calculation of the deemed capacity requirement, and the disbursement of payments to different classes of generator. These particular issues are fundamental to the viability of the CPM going forward, and will be essential to deliver the mix of plant in the generation portfolio required to achieve the government's 40% RES-E targets by 2020.

Estimation of the deemed capacity requirement is particularly important, as it is the part of the mechanism that gives the appropriate signal for the timing of new build in the market, to preserve the required level of security of supply. A critical issue here is the current lack of transparency in the methodology used to calculate the deemed capacity requirement. The current level of deemed capacity requirement seems to be at odds with the levels inferred by the independent Transmission System Operator, (Eirgrid), in successive Generation Adequacy Reports. The current method was driven by the assumption that the availability of plant in the Republic of Ireland would quickly match that demonstrated by plant in Northern Ireland once the SEM had commenced operations. This has clearly not been the case, and has resulted in the estimates of deemed capacity requirement for the CPM to date being only in the order of 3%-5% over peak demand, before counting system reserve requirements. This is completely inadequate to signal any need for new capacity at the present time, and is untenable given that the portfolio has struggled to meet peak demand over the last number of winters. In the context of international best practice, this could not be "*deemed*" a sufficient margin above peak demand.

Bord na Móna has a number of new thermal generation projects under consideration, including peaking plants, in its development program, and have first hand current experience in the procurement of this type of generation plant. This experience has reinforced our previously stated position that the costs of the BNE peaking unit developed in the three BNE processes to date have underestimated the true cost of this type of plant. In particular, the capital costs developed did not reflect the risk premiums that GT manufacturers require in offering an EPC contract in this country, or that certain manufacturers do not offer EPC contracts for open cycle plant at all. The timelines involved in developing the BNE costing, and the fact that it is always looking at historical prices, means that in the recent inflationary environment, the capital costs have been significantly out of date by the time that they were published. The market adjustment that had to be introduced by the RAs in last years process

effectively acknowledged this point, but completely undermined any sense of transparency or predictability in the BNE calculation methodology going forward.

The requirement to adjust the BNE costs to reflect margins that the BNE unit may receive in the energy and ancillary services markets is another fundamental problem with the current methodology. The infra-marginal rent deduction in the 2007 BNE process did significant harm to the whole mechanism, as it completely overstated the potential energy margins that this type of generator could receive in the market, and by consequence, has increased the perceived risk to the level of CPM revenues to generators. There is also an issue with the adjustment in relation to ancillary services revenues, as EirGrid have recently confirmed that they have no obligation to offer a contract for ancillary services to any generator, although there has been an assumed level of ancillary service revenues in all three BNE costing exercises done to date. The deduction of this assumed level of AS payment from the CPM calculation adds another level of uncertainty to the process, further increasing risk levels for project developers.

The focus of the consultation paper is on the controlling the potential volatility of the BNE price going forward. Given the previously stated issues with the methodology, BnM would prefer a more fundamental review of the BNE costing process, and suggest that these points should be considered as part of the scope for the CPM review to occur later this year. The response to the options in the paper are therefore considered as interim remedies to the methodology which can be applied to the setting of the 2010 ACPS, before a more enduring revised methodology is developed for subsequent years.

Of the options proposed in the paper, option one is the current methodology which has been applied over the last three capacity years. The application of this methodology has been over-conservative and erratic in the way that the scope of the BNE project has been defined. This has led to both the annual pots being too low, and a significant degree of uncertainty in how the process will be applied in the future. Last year's BNE cost estimation saw a change of the BNE peaker plant, a fall in the level of WACC at a time when the general cost of financing was rising fast, an approx 30% year-on-year drop in the fixed annual costs of running the BNE plant, and the introduction of an arbitrary market adjustment factor to correct the initial estimate of the capital costs of the plant. These factors have eroded any confidence that the current process used to set the BNE is in anyway stable or predictable, even from one year to the next, let alone over the investment horizon of a new plant. The current process introduces a level of risk that will likely prohibit the development of peaking capacity in particular, given that the bulk of revenue collected by plants with low capacity factors will be capacity revenue.

The arguments made in favour of updating all of the BNE price components year on year may work in theory for a large liquid market, where there is regular new build, and well developed competition. The counter argument is that where the BNE price tracks a cyclical market price for equipment that is driven primarily by global demand which is external to the SEM, the signal for new build will track the global equipment prices, and not the underlying capacity needs of the market. This effect is exacerbated at present because the deemed capacity requirement is pegged to such a low level of reserve margin. This is because projects that freeze their investment cost at the top of the equipment price cycle risk getting squeezed by falling capacity revenues as the

BNE price tracks a falling market trend for equipment. This is considered to be the single biggest risk with the methodology in its current format, and will result in projects not being sufficiently remunerated to give an adequate return on their investment. This will in turn inhibit future investment in the market. The most likely resulting scenario that would evolve over time is one where we would see significant overbuild in the market during troughs in the international equipment price cycle, and potentially capacity shortfalls during equipment price peaks.

None of the options 2-4 outlined in the consultation paper address this issue adequately, as they only address the shorter term variability of equipment prices, and potentially reduce the range of prices from peak to trough in equipment market cycles. This may dilute the linkage with international power generation equipment prices, but does not address the adequacy of the long term signal from the SEM.

Notwithstanding this, it is fair to say that a mechanism with more elements fixed over a longer period of time, and using an appropriate indexation formula, would be an improvement on the current methodology. Option 5 effectively extends the option 2 proposal to include the entire BNE cost, with indexation over a period of up to five years.

As already stated, the main issue with all of these approaches is that, whilst they address the potential volatility and predictability in the shorter term, they do not give clear visibility as to how capacity revenues might fluctuate over the financial evaluation period of a new entrant plant. Option 5 also introduces the potential for dramatic alterations to the level of capacity payments from one CPM review period to the next. This feature changes the risk profile of this option, relative to those of options 1-4, to give better short term certainty on capacity revenues but the potential for much larger step changes in CPM revenues between review periods. This would not, however, reduce the life cycle risk level for a project with an investment horizon of fifteen years or more. There would also be a diminishing level of certainty available from the start of a multi-year CPM review period, which may cause the timing of new generation capacity to be skewed to the cycle of the review periods, rather than the underlying demand for new capacity on the system.

In this regard, option 6 suggests a number of useful proposals that address the area of revenue predictability which address the main issues facing project developers attempting to bring new capacity to the market. Firstly, the proposal to fix the price of capacity for new generation projects, relative to the prevailing equipment prices in the year they bring their capacity to the market, breaks the potential for the market signal to be drowned by cycles in global power plant prices, or to be tied to the frequency of BNE review periods. Secondly, the suggested timeline of ten years for revenue predictability for new generators is more realistic in terms of the financial evaluation of power generation projects, although it is probably still too short, particularly for mid merit plants that anticipate a higher proportion of their revenues coming from the pool market.

This proposal needs to be considered in terms of its affect on the rest of the CPM market. In particular, the question arises as to what constitutes a 'new' plant, i.e. would the introduction of this proposal be unduly discriminatory to plant that are only operational for a short number of years in the market, and have not yet recovered all of their capital investment from the market. The other issue that arises is that if this proposal is applied to those plants that are deemed 'new', there is still a requirement

to address the methodology for the other legacy plants on the system. The formulation of two separate methodologies would also have to be compatible to the extent that the combined methodologies would still have to give the appropriate market signals to old plant to exit the market, as new capacity is introduced. From this point of view, Bord na Móna recognise the appropriateness of deferring the consideration of option 6, or variants of it, to the wider review of the mechanism proposed in September.

As an interim measure, Bord na Móna suggest that option 5, with the application of an appropriate indexation formula, would give the best level of certainty to the mechanism in setting the 2010 pot, or until a more enduring calculation methodology is found. In this regard, of the options suggested for a method of indexing prices, the PCCI would seem to be the most appropriate, although it could be useful to give a certain weighting to HICP, to reflect the proportion of 'local' costs in the estimate of project capital costs.

Summary

The CPM is a fundamental feature of the SEM, particularly in the market signal it gives to develop new capacity in the market as it is required. Bord na Móna are strongly of the view that the current methodology for setting the annual CPM pot will not give this correct signal, and if not addressed, will ultimately inhibit investment in the market, which will put pressure on the delivery of the 40% RES-E target, and affect the proper functioning of the SEM.

In this regard, it is timely to do a more fundamental review of the CPM, to ensure its methodology for setting both elements of cost of capacity and the capacity requirement are robust enough to ensure the CPM fulfils its function. It is important that the review of the mechanism promised this September adequately addresses these issues, and that the process is given enough time to consider all of the factors involved.

As an interim measure, Bord na Móna would support the use of option 5 with an indexation method formulated using the PCCI and HICP indices, for the setting of the 2010 Annual Capacity Payment Sum,

For and on behalf of
Bord na Mona Energy Ltd


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