



## **SEM-12-029 – Fixed Cost of a Best New Entrant Peaking Plant & Capacity Requirement for the Calendar Year 2013**

Endesa Ireland welcomes the opportunity to respond to the *Consultation on the Fixed Cost of a Best New Entrant Peaking Plant & Capacity Requirement for the Calendar Year 2013*. The stable revenue provided by the Capacity Payment Mechanism is a pillar of the SEM. As generators are required to bid into the SEM at SRMC, investors must be assured that the Capacity Payment will be maintained at an appropriate level to make a sufficient contribution to a generator's fixed costs.

Since Endesa Ireland invested in the SEM in 2009, capacity payments have decreased by over 17%. Many of the changes giving rise to this reduction have not been in response to fluctuations in the component fixed costs of the BNE, but have resulted from changes in calculation in CPM methodology, such as the change in the method for calculating infra-marginal rent and extension of the lifetime of the BNE from 15 to 20 years under the CPM. Another component of the BNE calculation which has significant impact on the BNE calculation is the WACC. The lack of transparency in the WACC calculation results in significant regulatory uncertainty. The RAs have been working to provide greater transparency and certainty in the BNE calculations to improve revenue certainty, however, the lack of a clear and transparent source for the recommended WACC ranges, continues to increase perceived risk. Endesa Ireland requests that the RAs publish a sources for the inputs to the WACC calculations, along with the weightings of each source to provide greater revenue certainty.

In the current consultation paper, the RAs have proposed utilising a UK WACC for a plant built in Northern Ireland. Endesa Ireland would note that the WACC in Northern Ireland is significantly higher than a blended UK WACC. In addition, given the joint all-island market, Endesa Ireland considers that a blended NI-Ireland WACC is more realistic and welcomes CEPA's confirmation that the SEM Committee will consider a blended WACC proposal before making a final decision on the 2013 BNE. Endesa Ireland considers that it would be appropriate to publish this proposal for comment before such a decision is made, be it by way of a separate consultation or a draft decision on the BNE.

Endesa Ireland also questions whether it is appropriate to propose a BNE that is not Grid Code compliant with respect to Leading Reactive Power. We believe that the BNE should be Grid Code compliant. In the areas where the BNE is not compliant, Endesa Ireland would argue that



no peaking units should be required to meet the Grid Code requirements with which the BNE is unable to comply. In addition, the costs of the penalties associated with non-compliance should be included in the BNE calculation.

#### *Medium Term Review*

Endesa Ireland welcomes the development that the capacity pot is to remain fixed, subject to indexing, for three years but considers that the RAs' statement at section 5.3.4 that the AS revenue could be adjusted depending on the outcome of DS3 undermines the stability aim in fixing the capacity pot. This is also inconsistent with the treatment of other costs / incomes, which are fixed at the time of consultation.

#### *Technology Choice*

Endesa Ireland recognizes that the RAs select the least-cost generator for the BNE plant in order to mimic the decision of a rational investor but points out that a rational investor would take into account any additional environmental costs of a generation unit such as the cost of carbon credits, planning permission, IPPC licence and required contributions to the community.

Endesa Ireland submits that the installed capacity of the proposed BNE is too large. Given the projected increase in intermittent renewables by 2020, it would be preferable that smaller units be constructed in areas near windfarms so as to provide voltage stability, which was identified as a problem by the TSO Facilitation of Renewables Study. Experience in the SEM shows that smaller peaking units have been installed in reality, for example the peaking units installed in Edenderry are 55MW each, Endesa Ireland's units at Rhode and Tawnaghmore are 52MW each<sup>1</sup>. As the BNE is assumed to be located in Northern Ireland it is instructive to look at peaking units there, units at Ballylumford and Coolkeeragh are 53MW each and the units at Kilroot are even smaller. This suggests that a rational investor would construct a unit significantly smaller than the proposed 196.5MW BNE for 2013. In the same way that a target FOP is used in the calculation of demand for the CPM so as to incentivize better performance by plant, as stated in section 5.3.1 of the RAs' paper, the characteristics of the BNE should reflect the type of plant that the RAs would like to see joining the system, a plant that is fully Grid Code compliant and able to provide the ancillary services identified by the DS3 programme.

As regards the preliminary decision not to include interconnectors as a possible BNE technology, Endesa Ireland considers that the CEPA paper does not give a reason to exclude

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<sup>1</sup> Planned peaking units in Cahir and Cuileen are 98MW.



Interconnectors from the selection process. The RAs' paper states that there is a level of uncertainty as to whether the Interconnector would be able to supply the last MW of load in all situations. It is unclear what 'in all situations' means, but seems to suggest that the BNE must provide black start capacity. If this is the case, then this must be a criterion of selection and the additional costs should be included in the calculation of BNE fixed costs. Given that the amount paid by the TSO for black start services under ASA contracts is not published, Endesa Ireland cannot comment on the statement at section 3.8.1 of CEPA's paper that the additional costs of providing black start would have been offset by the subtraction of associated ancillary service revenue. We note that the EWIC is likely to be the only non-renewable generator to connect to the system in 2012, which goes to illustrate the preferences of a rational investor.

#### *EPC Costs*

Endesa Ireland agrees that the Industrial Emissions Directive does not apply to stations which operate at less than 500 hours and would therefore not apply to the BNE. However, the increased penetration of intermittent renewable on the all-island system that will be required to meet 2020 targets will likely result in greater use of flexible plant, such as the BNE. Therefore, the unit should be future-proofed as much as possible to ensure that it can meet the IED standards or at least be capable of doing so. Any rational investor would consider this likelihood and look to ensure that the plant was capable of meeting these requirements.

#### *Location of the BNE Plant*

As regards the location chosen, Endesa Ireland notes that all of the conventional generators that have signed connection agreements, as set out in section 4.2 of CEPA's paper are located in Ireland. This calls into question the Northern Ireland location proposed for the 2013 BNE. A rational investor would take into account the tax regime in each potential location in choosing a site, as they would apply to energy and capacity payment income for the lifetime of the plant. The evidence cannot be disputed; no new investments are planned for Northern Ireland while in Ireland, 3 generators have been commissioned in the past 2 years and another is under construction. Rational investors choose to locate in Ireland.

It is peculiar that a particular site is identified in Northern Ireland but the site in Ireland is notional 'agricultural land, probably close to a relatively unconstrained part of the transmission network'. Endesa Ireland considers that actual site/s in Ireland with all necessary consents should be chosen for the purpose of estimating costs for the BNE.



Proposals from generators for the development of the landbank sites have been invited and are to be evaluated against assessment criteria which were set out by the UR. Endesa Ireland understands that this evaluation process is to commence in July 2012 and that the UR hope to have completed the evaluation process by the end of this year and to award or enter discussions with the preferred bidder. Given this timeframe, the proposed site cannot be said to be available to a BNE generator for development in 2013, considering the 18 month lead timeframe referenced in section 6.1 of the consultation paper.

We also question whether there would be land residual value for the generator for the NI site as set out in section 10.1 of the RAs' paper, given that the site is only available to the BNE for lease.

#### *Connection costs*

The electrical connection costs proposed in Section 7.3 of the RAs' paper seem to be low in Endesa Ireland's experience of connection costs in the SEM, although it is difficult to analyse without more detail. Endesa Ireland requests, in the interest of transparency, and to enable full analysis, that a full breakdown of assumed costs set out. Endesa Ireland requested that this information be provided in response to last year's BNE consultation. As the RAs have committed to increasing the transparency of the BNE calculations, we reiterate our request that this information is made public.

#### *Water Connection*

The proposal in section 4.3.6 of CEPA's paper for a water connection cost of zero is not realistic. This cost should include costs related to increased capacity of the water system necessary to meet the needs of the BNE and the cost of inspection and maintenance of the pipes. Endesa Ireland's experience is that even with a plant very close to water, existing pipelines require upgrade, inspection and maintenance and depending on the condition of the pipes this upgrade cost could easily exceed €200,000, in addition to yearly consumption rates. The CEPA paper states that the EPC includes costs related to water supply but it is impossible to analyse the amount allowed as it is not broken down within the EPC costs.

#### *Fuel Working Capital Assumption/Secondary Fuel*

Endesa Ireland does not agree with the assumption, as set out in section 7.7 of the RAs' paper that the Irish fuel security standard would apply to a station in Northern Ireland. Previous indications from the review of the fuel security code in Northern Ireland were that 5 days of



fuel stock would be required to be held by generators; some generators are currently required to hold significantly more. Endesa Ireland proposes that an average of actual requirements on generators in Northern Ireland could be used for this purpose.

The fuel working capital assumption must also be adjusted to incorporate the Carbon Price Floor to be introduced throughout the UK, which will increase the price of fuel.

#### *Other non-EPC costs*

Endesa Ireland considers that Other Non-EPC costs must include the costs of obtaining an IPPC licence and planning permission as well as a contribution to a local 'community gain' fund, which should reflect that a distillate plant will have a greater impact on the neighbouring community than a gas plant would from the point of view of emissions and deliveries to the station.

#### *Transmission Use of System Charge*

Endesa Ireland questions whether the use of an average TUoS is a sign that the RAs will implement a single rate on the island for all generators. If not, Endesa Ireland highlights that TUoS rates for new stations can be very high and submits that the RAs should require the TSOs to conduct the studies necessary to provide the TUoS charge for the BNE at the site chosen. Under the G-TUoS methodology a portion of generators' TUoS will be determined by the network reinforcement assets driven by that generator. It is likely that a new generator may thus be 'responsible' for a relatively large degree of reinforcement costs.

#### *Recurring Costs Estimate*

The most up to date costs for 2013 for market accession and participation fees, transmission and market operator charges and gas transmission charges should be incorporated in the BNE decision.

It seems that gas capacity charges for Ireland are (correctly) based on 2011/12 prices, rather than 2010/11 as stated in the document. Endesa Ireland presumes that there is a typographical error in this section, asks that this be clarified, and indeed should be adjusted to reflect the 2012/13 figures when available.

#### *Other Investment Costs*

Endesa Ireland welcomes the RAs' statement that distillate storage facilities must be included for both fuel types, but does not see from the RAs' paper or CEPA's report that they have been.



Endesa Ireland estimates that this cost would be in the region of €800,000-€1,000,000 but proposes that the RAs analyse this question further.

Endesa Ireland notes that there are significant costs that generators continue to be unable to recover from the market, such as costs for connection to and use of the gas transmission network. We urge the SEM Committee to include these costs in the capacity payment calculations or devise a means by which generators are able to recover these costs from the market. This has been a gap in the SEM since its establishment and Endesa Ireland considers that it must be resolved urgently, especially in view of the key role to be played by gas-powered generation in catering for the intermittent nature of wind generation. These costs may presently be absorbed by baseload CCGTs who have historically benefitted from infra-marginal rent, but this may not continue into the future and is certainly not the case for peaking units.

#### *Economic and Financial Parameters*

Endesa Ireland considers that it is not correct to assume that the cost of debt and equity if the plant is to be constructed in Northern Ireland would be comparable to costs in the UK overall given the all-island market. The fact that CEPA find it difficult to assess the cost of debt in Ireland with the Euro-zone debt crisis is illustrative in itself of the problems facing investors, which do not mitigate towards a low cost of debt. In addition, uncertainty around the future of SEM market design clearly has a negative impact on risk and thus the cost of capital for investors.

Endesa Ireland supports the use of a blended SEM WACC (NI-Ireland) for the reasons set out in Annex 3 of CEPA's report, that is that as capacity payments are funded on an all-island basis and are covered by all-island credit cover arrangements, this implies that investment risk of the BNE located in Northern Ireland is as much dependant on payment and credit risk of market participants domiciled in Ireland as in Northern Ireland; any unsecured loss would be socialized amongst *all* generation units in the SEM. We welcome the statement that a blended all-island SEM WACC is to be presented to the SEM Committee as an option for the final consultation paper. However, Endesa Ireland considers that any such proposal must be published for comment by interested stakeholders. Further, Endesa Ireland does not agree with CEPA's proposal (Annex 3) that if there is an all-island WACC that the RAs would take a lower point in the Irish WACC parameter range than they otherwise would.

Endesa Ireland finds the CEPA recommendation (Section 5.2.6) for a lower range for assumed real pre-tax WACC for Ireland (5.7-11.3%) than last year (7.6-11.6%), based on an assumed lower cost of debt to be completely inappropriate. This seems to ignore the effect of the



ongoing financial problems facing the country on access to capital. The range for the UK (5.6% - 7.3%) is slightly higher than last year (5.5% - 7.0%), but as stated above, in an all-island market it is not considered realistic to assume a UK WACC; a blended NI/Irl WACC is more appropriate.

Endesa Ireland does not consider that it is correct to assume that the BNE investor is likely to be an integrated utility with a credit rating of BBB to A seeking to raise funding at the corporate level as set out in section 5.1.2 of CEPA's paper. Endesa Ireland considers that this is discriminatory against smaller market participants. Furthermore, Endesa Ireland would note that as an integrated utility with the proposed credit rating, Endesa Ireland's WACC is higher than the proposed WACC.

Endesa Ireland notes CEPA's statement in section 5.1 that CER and UR's price controls of BGN and NIE will be of interest to the BNE decision on WACC and that they may be used to update the BNE WACC parameter ranges. Endesa Ireland submits that if there is to be a shift in thinking on this point prior to the publication of a BNE decision that a draft decision should be published for consultation. In any event, Endesa Ireland considers that the WACC for a regulated transmission or distribution electricity or gas company is of very limited relevance for a BNE generator. Monopoly companies with regulated incomes enjoy lower costs of capital than merchant investors.

#### *Infra Marginal Rent*

It seems to Endesa Ireland that the bid price used does not include startup costs and TLAFs, which would seem to be an omission. Endesa Ireland requests clarification on this point and submits that these should be included for this calculation. Further, the bid cost should include the Carbon Price Floor which is to be introduced in Northern Ireland in April 2013.

#### *Ancillary Services Revenue*

Endesa Ireland notes that the Ancillary Services section of the Consultation Paper and CEPA's report provides more information than last year and welcomes this development. However, Endesa Ireland considers that there is scope for greater clarity in some areas.

As regards the assumption that the unit's run hours would be 2%, Endesa Ireland highlights that in its experience of operation of peaking units in the SEM market, a figure of 1% (or in reality even less than 0.5%) would be more realistic.

Endesa Ireland notes the divergence between CEPA's paper for 2012 and 2013. Neither make a provision for black start but in 2012 it was stated that '...since the BNE plant will conceptually



be serving the last kW it will never be used for operating reserve. Similarly we would expect provision of leading/lagging power factors to be provided more cheaply by machines already operating rather than paying the start up and shut down costs for a gas turbine. The only AS which therefore appears relevant is the provision of replacement reserve. The plant's fast start capability was one of the criteria requested for consideration by the system operator and can be provided by all the machines selected.' The RAs diverged with this view last year and assumed that the BNE would provide a range of AS, without providing any justification for the divergence.

Endesa Ireland would highlight that generators must enter into Ancillary Services Agreements (ASA) with the TSO in order to receive payment for Ancillary Services provided. An ASA sets out agreed values for provision of these services; should a generator provide services in excess of the agreed values they will not receive payment for the excess whereas if a generator fails to provide services as per the agreed values they will be penalized.

The Consultation Paper does not discuss an ASA and the agreed values that are assumed to be contained in it. Endesa Ireland requests that these assumptions and the assumed operational reserve and reactive power capabilities of the unit be published and substantiated by the RAs, so that there is an opportunity to comment on these assumptions.

It appears from CEPA and the RAs' paper that the Alstom GT is not compliant with the Irish Grid Code with respect to Leading Reactive Power, as it can only provide 64.6MVAR, rather than the 121.8MVAR required by the Grid Code (based on an installed capacity of 197MW). Nor is it clear if the unit can fault ride through for 200ms when operating at this range. Endesa Ireland argues that Grid Code Compliance should be a criterion of BNE selection, and understands that all units, regardless of size, are required to comply with the Grid Code unless they receive derogations. Endesa Ireland questions the attitude put forward by the RAs from their consultants PB, that Grid Code compliance is likely to be less onerous for smaller units. If the BNE cannot meet Grid Code Requirements then the costs of ensuring compliance or the penalty for failure to comply must be deducted from the revenue received by the BNE. In this case, we calculate that penalties for failure to comply with Reactive Power for the Alstom unit would be in the region of **€32,000 annually** based on the figures published for consultation by the TSOs for the tariff year 2012/13 which proposed no change to the existing penalty<sup>2</sup>.

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<sup>2</sup> [http://www.allislandproject.org/en/transmission\\_current\\_consultations.aspx?article=0f61e9b3-5a0b-4632-b0a2-c3d83433c69e](http://www.allislandproject.org/en/transmission_current_consultations.aspx?article=0f61e9b3-5a0b-4632-b0a2-c3d83433c69e)





Endesa Ireland requests clarification of these points and as stated above, if the unit is not fully Grid Code compliant it should be adjusted so as to comply, or the relevant penalties should be applied in the BNE calculation. Endesa Ireland would also consider that where a BNE is not required to comply with a Grid Code requirement, this should be taken as precedent that derogations for the relevant requirements will be granted to similar units.

Endesa Ireland notes that for the 2012 BNE an addition was made to EPC costs to cover adjustments required to ensure the BNE was Grid Code compliant and considers that this should also be done for 2013, for all elements of Grid Code compliance. Endesa Ireland notes the comments in the 2012 BNE Decision Paper that it is difficult to quantify the costs for a generator on account of the Irish Grid Code but points out that it would be necessary for any new entrant to know these costs. In particular, we point to the Land Bank Site Proposals Assessment Criteria which state that the project proposed must 'demonstrate the technical and financial capability to manage the project proposed and bring it to fruition'.

As regards the Short Notice Declaration charge included in the paper, a charge of €40 per MW has been used, which is not the current rate. Therefore a charge of €70/MW, which is the current rate and the TSOs propose to retain for 2012/13 must be used. In addition, Endesa Ireland notes that the current Joint Grid Code consultation on *Failure to Follow Synchronisation Instruction* would put an end to Short Notice Re-declaration, in these circumstances Endesa Ireland questions whether an SND penalty would be incurred, or rather whether full trip charge or another penalty would be payable following this modification. The relevant penalty should be assumed for the purposes of calculating BNE costs.

#### *Capacity Requirement - Demand Forecast*

Endesa Ireland notes the RAs' comment in section 14.3.2 that it may revisit the demand forecast during the early summer of 2012 and submits that if there are to be any changes for the BNE calculation that such proposal should be consulted on with industry.

#### Conclusion

Endesa Ireland highlights the importance of the Capacity Payment Mechanism for generators, who rely on the payment to contribute to the recovery of a generator's fixed costs. With the increased penetration of intermittent renewable generation, conventional generators are increasingly reliant on the capacity payment mechanism and the system has a continuing need



for those conventional generators and may become more demanding of them. Given the limited running of a BNE, the capacity payment is its primary source of revenue.

We recognize the RAs' efforts to provide greater transparency in the calculation of the costs of the BNE and in calculating the capacity requirement. In order to improve transparency, aid stability and enable robust analysis, we ask that the sources used in the formulation of WACC components and any associated weightings be fixed by the RAs.

As stated above, Endesa Ireland believes that a blended Ireland-Northern Ireland WACC should be used to reflect the reality of the all-island market. We are heartened at the statement in CEPA's paper (Annex 3) that the RAs are to consider a blended WACC and ask that this proposal be consulted upon.