



Single Electricity Market

Fixed Cost of a Best New Entrant

Peaking Plant,

Capacity Requirement

&

Annual Capacity Payment Sum for the Calendar Year 2014

Decision Paper

12 August 2013

SEM-13-056

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2 SUMMARY OF DECISION

The Best New Entrant (“**BNE**”) peaking plant is an Alstom GT13E2 firing on distillate fuel, sited in Northern Ireland. This was determined as part of the calculation of the Annual Capacity Payment Sum (“**ACPS**”) for 2013. In accordance with the decision described in the CPM Medium Term Review Final Decision Paper (SEM-12-016)¹, its cost was fixed and indexed for three years.

The annualised fixed cost, net of estimated Infra-Marginal Rent and Ancillary Services revenue determined for the 2013 ACPS was €78.18/kW/year. When adjusted for inflation and after deduction of Ancillary Services revenue and Infra-Marginal Rent, the BNE cost for the 2014 ACPS is €80.27/kW/year.

The Capacity Requirement for 2014, calculated using a similar methodology to previous years, is 7,049MW.

The product of these price and quantity elements yields an Annual Capacity Payment Sum for 2014 of €565,819,301.

Year	BNE Peaker Cost (€/kW/yr)	Capacity Requirement (MW)	ACPS (€)
2014	80.27	7,049MW	€565,819,301

This compares to an ACPS of €529,876,722 for the 2013 capacity year.

¹http://www.allislandproject.org/en/cp_decision_documents.aspx?article=5ce2db5f-6c79-4454-9779-53dd7fae8dba

3 CONSULTATION

On 14 May 2013 the Regulatory Authorities (“**RA**s”) published a consultation paper on the ‘Capacity Requirement and Annual Capacity Payment Sum for Calendar Year 2014’ (SEM-13-030)².

This paper set out the background to the Capacity Payment Mechanism (“**CPM**”) and outlined the outcome of the CPM Medium Term Review that was concluded in 2012³.

3.1 BNE FOR 2014

In the decision paper on the Fixed Cost of a BNE peaking plant, Capacity Requirement and Annual Capacity Payment Sum for the Calendar Year 2013⁴, the BNE for 2013 and the following two years was determined as an Alstom GT13E2 firing on distillate fuel, sited in Northern Ireland.

Because the BNE is located in Northern Ireland, the CPI as measured in the UK will be used to index the 2013 BNE annualised cost.

At the time of consultation the most recent inflation data available for CPI in the UK showed that average prices in the UK increased by 2.79% between February 2012 and February 2013⁵. The annualised BNE cost per kW to be used in the 2014 Annual Capacity Payment Sum was therefore calculated to be €80.36/kW/year.

	Decision 2013	Proposed 2014
Annualised Cost per kW per year	88.14	90.60
Ancillary Services	4.37	4.49
Infra-Marginal Rent	5.59	5.75
BNE Cost per kW per year	78.18	80.36

²http://www.allislandproject.org/en/cp_current-consultations.aspx?article=a05f2997-24a7-41f2-993f-adca04d97ccb

³http://www.allislandproject.org/en/cp_decision_documents.aspx?article=5ce2db5f-6c79-4454-9779-53dd7fae8dba

⁴http://www.allislandproject.org/en/cp_decision_documents.aspx?article=75c548a7-34ee-497c-afd2-62f8aa0062df

⁵<http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-276818>

3.2 CAPACITY REQUIREMENT FOR 2014

The methodology used for calculating the Capacity Requirement for 2014 was the same as used in previous years' calculations and was outlined in the consultation paper. As a result of analysis carried out in conjunction with the TSOs, the RAs proposed that the Capacity Requirement for 2014 should be **7,049MW**. This represented an increase of 271MW from the Capacity Requirement for 2013 of 6,778MW.

4 CONSULTATION RESPONSES

The RAs received six responses to the consultation, which are published along with this paper. Responses were received from the following parties:

- AES
- Bord Gais Energy (BG Energy)
- Bord na Móna
- Energia
- ESB Generation & Wholesale Markets
- Power Procurement Business (PPB)

The responses provided were assessed and considered by the RAs in the determination of the decisions described in this paper.

4.1 SUMMARY OF COMMENTS RECEIVED

As the BNE for 2014 remains the same as per that calculated for 2013, in line with the CPM Medium Term Review decision, the comments received were, in general, limited to a few specific areas.

All respondents argued that it is not appropriate to apply the same inflation rate to the cost associated with ancillary services as to that applied in indexing the annualised cost of the BNE peaker. The majority of these respondents argued that ancillary services revenue should instead be inflated by 2% as per the consultation in relation to Harmonised Ancillary Service rates for 2013/14 (SEM-13-020⁶).

The majority of respondents also argued that the UK CPI rate should not be applied to the calculation of Infra-Marginal Rent (IMR). Some respondents argued that within the stated formula for IMR⁷ the only variable that should be inflated is the bid price element. Other respondents argued that IMR should not be inflated.

Two respondents provided comments in relation to the Capacity Requirement calculations. One respondent made a comparison between the Capacity Requirement and information derived

⁶ http://www.allislandproject.org/en/transmission_current_consultations.aspx?article=0f61e9b3-5a0b-4632-b0a2-c3d83433c69e

⁷ $IMR \text{ DEDUCTED IN } \text{€}/\text{kW} = [(\text{PCAP-BID})/1000] * \text{OUTAGE TIME} * (1-\text{FOP})$. See [SEM-12-078](#) and [SEM-12-016](#) for further detail.

from the latest TSO Generation Capacity Statement. Another respondent suggested that the capacity requirement should account for 'sympathetic tripping'.

Some other general comments were received, including a suggestion to change the Forced Outage Probability, reconsider the Ancillary Services and IMR in light of the need to incentivise flexible capacity, and to consider fixing the BNE for an additional year.

4.2 RESPONSE TO COMMENTS RECEIVED

The RAs appreciate the time and effort respondents put into responding to the consultation proposals.

In relation to indexation of Ancillary Services revenue, the decision paper on the Fixed Cost of a BNE peaking plant, Capacity Requirement and Annual Capacity Payment Sum for the Calendar Year 2013⁸ highlighted the intention of the RAs to fix the Ancillary Services deduction for three years. While the consultation paper proposed to index this amount in line with indexation applied to the BNE peaker costs, the RAs recognise that for consistency, indexation should be applied on the same basis as per the latest Harmonised Ancillary Services and Other System Charges decision paper⁹.

The RAs also appreciate the comments raised in relation the IMR deductions and having considered these along with previous SEMC decisions, the RAs have decided that the IMR deduction should continue to be applied as per the formula decided upon within the CPM Medium Term Review⁶.

In relation to the Capacity Requirement calculations, the methodology uses a simulated program ("AdCal") which takes into account the weighted capacity of wind and historical scheduled outages programs as well as market load in order to calculate a forecasted capacity requirement, whereas the calculation within the Generation Capacity Statement takes into account all generators on the system to meet the total electricity requirement, and hence are not directly comparable.

Sympathetic Tripping (where one generating unit fails, causing the system frequency to drop, and hence causing another unit to become unstable and trip) is also considered a matter for

⁸http://www.allislandproject.org/en/cp_decision_documents.aspx?article=75c548a7-34ee-497c-afd2-62f8aa0062df

⁹http://www.allislandproject.org/en/transmission_current_consultations.aspx?article=0f61e9b3-5a0b-4632-b0a2-c3d83433c69e

system security, not adequacy assessment. The CPM process deals with system adequacy, which relates the existence of generation facilities as being sufficient to satisfy customer demand.

The same process was applied for the 2014 Capacity Requirement calculation as per that was used in previous years.

While noting various other comments received, the RAs consider that these comments largely fall out of the scope of this process and were addressed previously within the CPM Medium Term Review decision (SEM-12-016).

5 BNE AND CAPACITY REQUIREMENT DECISION

Having considered the responses to the consultation, along with other relevant information available, the RAs have updated the final BNE figure to account for the following:

- The latest available CPI figure. CPI data for May 2013¹⁰ is now available and showed that average prices in the UK increased by 2.69% between May 2012 and May 2013.
- Indexation of Ancillary Services revenue by 2%.
- Application of the IMR formula, as follows:

$$\begin{aligned} \text{IMR DEDUCTION IN €/kW} &= [(\text{PCAP-BID}) / 1000] * \text{OUTAGE TIME} * (1 - \text{FOP}) \\ &= [(1000 - 232) / 1000] * 8 * (1 - 5.91\%) \\ &= \text{€}5.78/\text{kW} \end{aligned}$$

Note that only the bid price element has been adjusted from the calculation used for the 2013 BNE. The bid price used for 2013 was based on the average distillate bid on 4 July 2012, with an uplift applied to account for the impact of the expected introduction of the carbon price floor in Northern Ireland.

The bid price calculated above is based on the average distillate bid on 4 July 2013. This price has not been adjusted for the Carbon Price Floor.

The Capacity Requirement is to remain as per proposed in the consultation paper at 7,049MW.

The BNE Peaker Cost and Capacity Requirement will therefore be as follows:

	Decision 2013	Proposed 2014	Decision 2014
Annualised Cost per kW per year	88.14	90.60	90.51
Ancillary Services	4.37	4.49	4.46
Infra-Marginal Rent	5.59	5.75	5.78
BNE Cost per kW per year	78.18	80.36	80.27
Capacity Requirement (MW)	6,778	7,049	7,049
Annual Capacity Payment Sum (€m)	529.88	566.44	565.82

Table 5.1 – BNE and Capacity Requirement Decision for the Trading Year 2014

¹⁰<http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Consumer+Prices+Index#tab-data-tables>

6 ANNUAL CAPACITY PAYMENT SUM FOR 2014

Based on the annualised fixed cost of the BNE Peaker and the Capacity Requirement for 2014 as detailed in Sections 5 above, the Annual Capacity Payments Sum (ACPS) for 2014 is determined to be €565.82m. The final figures are detailed in table 6.1 below.

Year	BNE Peaker Cost (€/kW/yr)	Capacity Requirement (MW)	ACPS (€)
2014	80.27	7,049	565,819,301

Table 6.1 – ACPS for the Trading Year 2014

7 ANNUAL CAPACITY PAYMENT SUM FOR PREVIOUS TRADING YEARS

Year	BNE Peaker Cost (€/kW/yr)	Capacity Requirement (MW)	ACPS (€)
2007	64.73	6,960	450,517,348
2008	79.77	7,211	575,221,470
2009	87.12	7,356	640,854,720
2010	80.74	6,826	551,133,375
2011	78.73	6,922	544,956,545
2012	76.34	6,918	528,120,120
2013	78.18	6,778	529,876,722
2014	80.27	7,049	565,819,301

Table 7.1 – SEM Annual Capacity Payment Sums