

# **Single Electricity Market Committee**

## **A Review of the Effectiveness of PCAP & PFLOOR**

### **A Response and Decision Paper**

**SEM-08-090**

**1 September 2008**

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## 1 Introduction

The Regulatory Authorities (RAs) are required under the Trading and Settlement Code (TSC) to determine three administered prices. These are:

- the value of lost load (VOLL);
- the market price cap (PCAP); and
- the market price floor (PFLOOR).

Following consultation last year, the Regulatory Authorities decided for the period from 1st November 2007 to 31st December 2008 that:<sup>1</sup>

- VOLL would be set to €10,000/MWh;
- PCAP would be set to €1,000/MWh;
- PFLOOR would be set to minus €100/MWh; and that
- these values would remain valid for the period to end-2008.

The Regulatory Authorities also decided that:

- in the case of VOLL, its value in subsequent calendar years would be determined by taking its value in the preceding year and up-rating it by applying the weighted average of the year-on-year increases in the Irish Harmonised Index of Consumer Prices (HICP) (using a weight of two-thirds) and the UK HICP (using a weight of one third) in the July of the preceding year by comparison with that a year earlier;
- in the case of PCAP and PFLOOR, the effectiveness of these values would be looked at in the second half of 2008 and re-set if necessary.

The calculation of VOLL for 2009 using the formula decided upon last year will be done later in the year, to meet the requirement in the Trading and Settlement Code to publish a value for VOLL for 2009 two months before the start of the TSC year (i.e., by the end of October 2008).

On the 11<sup>th</sup> June 2008, the Regulatory Authorities (RAs) published a Consultation Paper (AIP-SEM-08-071) which reviewed the effectiveness of PCAP and PFLOOR, as required by last year's decision.

The Consultation Paper proposed:

- to leave PCAP at €1,000/MWh; and
- to leave PFLOOR at minus €100/MWh.

The RAs received comments from four interested parties on the Consultation Paper. The four respondents were:

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<sup>1</sup> See AIP-SEM-07-484

- ESB International (ESBI)
- Northern Ireland Electricity (NIE) Supply
- Synergen
- Viridian Power & Energy (VPE)

The following sections summarise these four submissions, dealing separately with PCAP and PFLOOR in turn. A response by the RAs is provided in each case and each section concludes with the SEM Committee's final decision.

The SEM Committee's final decision is summarised in a concluding section.<sup>2</sup>

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<sup>2</sup> The SEM Committee is established in Ireland and Northern Ireland by virtue of section 8A of the Electricity Regulation Act 1999 as inserted by section 4 of the Electricity Regulation (Amendment) Act 2007, and Article 6 (1) of the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007 respectively. The SEM Committee is a Committee of both CER and NIAUR (together the Regulatory Authorities) that, on behalf of the Regulatory Authorities, takes any decision as to the exercise of a relevant function of CER or NIAUR in relation to a SEM matter.

## **2 Comments on the Consultation Paper and the Regulatory Authorities' Response**

The comments of respondents to the Consultation Paper are summarised below, beginning with comments made on the RAs' proposal that PCAP remains at €1,000/MWh.

### **2.1 PCAP**

#### **2.1.1 Initial Proposals**

In the Consultation Paper the RAs noted that SMP has not been set at PCAP thus far. The fact that PCAP was set at a level sufficiently in excess of the SRMC (short run marginal cost) of the most expensive unit on the system so as to allow prices to be set as intended by the MSP software without constraint suggests that PCAP was effective in achieving its objectives.

The SEM Committee thus proposed to leave PCAP unchanged at €1,000/MWh for 2009.

#### **2.1.2 Respondents' Comments**

**ESBI** had no objection based on price outcomes so far in the SEM for PCAP to remain unchanged at €1,000/MWh. They were of the opinion that it was prudent to leave PCAP unchanged, in the interests of stability.

**NIE** were generally content with the approach adopted.

**Synergen** accepted the RAs' position that to date the current figure had fulfilled the objectives of the price cap and on that basis supported the continuation of PCAP at €1,000/MWh for 2009.

**VPE** argued that with the significant increase in commodity prices and the continuing poor availability of ESB Power Generation plant, the risk of price limits setting market prices is significantly greater today than it was when PCAP was originally set; and that price limits should not undermine the fundamental market principle that a generator should not be required to generate when the market price is below its SRMC.

VPE suggested that PCAP be set daily as a function of distillate and carbon prices to avoid this happening. They suggested that this could be implemented by setting PCAP as a multiple of the SRMC of a BNE OCGT (Open Cycle Gas Turbine) peaker, with PCAP then varying on a trading day basis with day-ahead distillate and carbon prices.

### 2.1.3 Response by the Regulatory Authorities

In response to these comments, the RAs note that:

- most respondents agree that PCAP should remain unchanged at €1,000/MWh for 2009.
- a variable PCAP changing daily with day ahead distillate and carbon prices would involve the use of significant resources for the Market Operator. It is far from clear whether the benefits to market and to electricity consumers of a daily PCAP as outlined above would be significant enough to justify such costs by the Market Operator<sup>3</sup>
- a variable PCAP changing daily would be inconsistent with the TSC which provides that the RAs shall determine the PCAP from time to time, and the Market Operator publish these within 5 days. Such a PCAP would require a modification to the TSC, which any person is entitled to bring to the Modifications Committee for consideration
- The RAs are not aware of price caps being set as a function of daily fuel prices in any other electricity market.

Nonetheless, the RAs will continue to monitor fuel and carbon prices to ensure that they do not reach levels that in combination with a PCAP set at €1,000/MWh threaten to undermine the fundamental market principle that a generator should not be required to generate when the market price is below its SRMC. The RAs' internal modelling of the next TSC year, using prevailing forward fuel and carbon prices, indicates that the highest forecast SRMC is significantly below the proposed PCAP value.

### 2.1.4 Final Proposal

Having considered the responses on the review of the effectiveness of PCAP and PFLOOR in the SEM, the SEM Committee has decided that:

- PCAP should remain unchanged at €1,000/MWh for 2009;
- a review of its effectiveness will be carried out in the second half of 2009 in order to set the value of PCAP for 2010.

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<sup>3</sup> Such costs would be recovered from the market and ultimately consumers

## 2.2 PFLOOR

### 2.2.1 Initial Proposals

In the Consultation Paper the Regulatory Authorities (RAs) noted the fact that SMP has never been set at PFLOOR and this has meant that prices have been set by the MSP software without constraint. This suggests that PFLOOR has been effective in achieving its objectives.

The RAs noted that SMP has never been negative and that no generator has yet bid in a unit with negative PQ bids but stated that they continue to see merit in giving generators that are prepared to pay to stay on the system rather than be constrained off the opportunity to pay in negative price bids. The RAs also noted that no Excessive Generation Events have yet been called and that, given this experience since the SEM began, it looks as if an Excessive Generation Event is rarely – if ever – likely to be declared by the MSP software. Thus, with the current the generation mix, prices are unlikely to go negative for reasons other than generator bidding behaviour.

The SEM Committee thus proposed to leave PFLOOR unchanged at minus €100/MWh for 2009.

### 2.2.2 Respondents' Comments

**ESBI** had no objection based on price outcomes so far in the SEM for PFLOOR to remain unchanged at minus €100/MWh. They are of the opinion that it is prudent to leave PFLOOR unchanged at this time, in the interests of stability.

**NIE** were generally content with the approach adopted.

**Synergen** accepted the RAs' position that to date the current figure had fulfilled its objectives and on that basis supported the continuation of PFLOOR at minus €100/MWh for 2009.

**VPE** were happy that there may be legitimate circumstances when a generator may be required to bid a negative value to comply with their licence condition to bid SRMC but were concerned about how PFLOOR interacts with the Excessive Generation Event set out in section 4.74 of the Trading & Settlement Code (TSC). In VPE's view setting the market price to PFLOOR when price taking generation is greater than demand breaches a primary principle of electricity markets that a generator should not be required to generate at a loss, where it cannot recover short run costs.

VPE proposed that PFLOOR be left unchanged at minus €100/MWh and that the TSC be changed so that an Excessive Generation Event sets the market price to zero, not PFLOOR.

### **2.2.3 Response by the Regulatory Authorities**

In response to these comments the RAs note that:

- all respondents agree that PFLOOR should remain unchanged at minus €100/MWh for 2009.
- in the event of excessive generation event, the market price should send an efficient market signal both to generation and demand that there is an excess of generation and/or low demand. Such a signal should not be mitigated such that it prevents consumers from benefitting from negative prices which reflect market dynamics. Should respondents feel that the setting of the SMP to the PFLOOR is inappropriate in such circumstances; the RAs suggest that they bring a modification proposal to the TSC Modification Committee, justifying the Modification against the TSC Objectives.

### **2.2.4 Final Proposal**

Having considered the responses on the review of the effectiveness of PCAP and PFLOOR in the SEM, the SEM Committee has decided that:

- PFLOOR should remain unchanged at minus €100/MWh for 2009;
- its value will not be changed during the course of the period to 31<sup>st</sup> December 2009; unless the SEM Committee determines otherwise
- a review of its effectiveness will be carried out in the second half of 2009.



### **3 Conclusions**

The Regulatory Authorities are required by the Trading and Settlement Code to set values for PCAP and PFLOOR in €/MWh.

The SEM Committee have decided, after due consideration of the responses to the Consultation Paper published on 11<sup>th</sup> June 2008, that for 2009:

- PCAP will remain unchanged at €1,000/MWh.
- PFLOOR will remain unchanged at minus €100/MWh.