

Single Electricity Market Committee

Policy Parameters 2014

Decision Paper

SEM-13-080

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1. Introduction

The SEM Trading and Settlement Code (the Code or the TSC) sets out a number of policy parameters which are determined by the Regulatory Authorities (RAs) on an annual basis.

VoLL/PCAP/PFLOOR

In accordance with paragraph 4.12 and 4.95 of the Code, the Regulatory Authorities (RAs) are required to determine the following three administered prices:

- the Value of Lost Load (VoLL);
- the Market Price Cap (PCAP); and,
- the Market Price Floor (PFLOOR).

Following consultation last year, the RAs decided (SEM-12-077) for the period from 1 January 2013 to 31 December 2013 that:

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

The recent Consultation Paper (SEM-13-053), published on 6 August 2013, undertook a review of the effectiveness of PCAP and PFLOOR with a view to setting the values for the period 1 January to 31 December 2014. The values proposed in the consultation paper with respect to PFLOOR are those used since the beginning of the market. The Consultation Paper indicated the intention of the SEM Committee to consider changing the PCAP to €1,200/MWh. This paper provides a final decision on these matters, following receipt of respondents' comments.

The calculation of VoLL for 2014, using the methodology decided upon in 2007, is set out in this paper to meet the requirement in paragraph 4.95 of the Code.

UPLIFT PARAMETERS

Under paragraphs 4.70 and 4.71 of the Code, the RAs are required to determine three parameters used in the calculation of Uplift¹. These are:

¹ For more on the background to the methodology and objectives of Uplift in the SEM see the following: Objectives of the Function to Include Start-Up and No-load Costs in SMP(AIP/SEM/92/06), SMP Uplift Objectives – Decision Paper (AIP/SEM/142/06), SMP Uplift Parameters Consultation (AIP/SEM/230/06), and SMP Uplift Methodology and Parameters – Decision Paper (AIP/SEM/51/07)

- The Uplift Alpha value α , which governs the importance of the Uplift Cost Objective, such that $0 \leq \alpha \leq 1$;
- The Uplift Beta value β , which governs the importance of the Uplift Profile Objective, such that $0 \leq \beta \leq 1$ and such that $\alpha + \beta = 1$; and,
- The Uplift Delta value δ , to constrain the overall impact on revenue in each Trading Day t arising from the Uplift calculation, such that $\delta \geq 0$.

Following consultation, the SEM Committee last year decided (SEM-12-077) for the period from 1 January 2013 to 31 December 2013 that:

- α should be set to a value of zero;
- β should be set to a value of 1; and,
- δ should be set to a value of 5.

The Consultation Paper (SEM-13-053), published on 6 August 2013, presented some analysis of the behaviour of Uplift for the period May 2012 to April 2013 and proposed further analysis to be carried out on the values for the three Uplift values (α , β and δ) for the year 2014.

2. Comments from Respondents

The SEM Committee received six responses to the consultation paper from the following parties:

- Bord Gáis Energy (BG Energy)
- Bord na Mona
- Electricity Association of Ireland (EAI)
- Energia
- Irish Wind Energy Association (IWEA)
- Power NI Energy Limited Power Procurement Business (PPB)

Responses received are published with this Decision Paper.

3. PFLOOR

The SEM Committee did not propose to change the PFLOOR from minus €100/MWh.

3.1. Respondents' Comments

No responses were received from Participants on the proposed values for PFLOOR for 2014.

3.2. Final Decision

The SEM Committee has decided to maintain a PFLOOR value of minus €100/MWh for the year 1 January to 31 December 2014.

It should also be noted that the section 4.12 of the Trading and Settlement Code gives the SEM Committee power to determine the PFLOOR from time to time should the need arise. The SEM Committee will therefore reconsider the value of PFLOOR in future where required.

4. PCAP

4.1. Proposals presented in the Consultation Paper

In the Consultation Paper, (SEM-13-053), published on 6 August 2013, the SEM Committee indicated that it was considering changing the value of PCAP to €1,200/MWh for 2014. This proposed change to PCAP was put forward following the application of PCAP in the market in February 2013.

4.2. Respondents' Comments

- The majority of respondents argued that changing PCAP to €1,200/MWh could only be considered a reaction to one extremely rare event which has no bearing on the likelihood of such events occurring again or more frequently in 2014.
- PPB stated that one of the given reasons for setting PCAP at the conservative level of €1,000/MWh was to ensure that the MSP software did not frequently drive prices to PCAP at times when load is actually being served. It states that this has not been occurring as SMP was set to PCAP on one occasion only during the analysis period.

PPB also notes that this is the first time PCAP has been applied since the start of SEM and extrapolated from this that PCAP is functioning correctly.

- Energia recommends that the value for PCAP remain unchanged and advocates giving consideration to reduction of PCAP based on the evidence.
- BG Energy believes that there is still inadequate liquidity in the contracts' market and that one incidence of PCAP in a six-year-period should not trigger a change of its value.
- Bord na Mona commented that the first occurrence of a PCAP event in approximately 100,000 trading periods did not warrant an increase in PCAP.
- A number of respondents pointed to the link between the PCAP and the capacity pot and suggested that a reduction in the capacity pot would be very damaging to investors and to market confidence more generally. More particularly, IWEA commented on the negative interaction between PCAP and the BNE price and stated that a €10m plus reduction in the capacity pot would be damaging in light of the decision to introduce stability in the CPM through a fixed period for capacity payments and the decision to maintain market stability to 2016. Energia advised careful consideration of any potential increase in PCAP to avoid a disproportionate effect on the market.

4.3. Final Decision

The SEM Committee has decided to maintain a PCAP value of €1,000/MWh for 2014 but to keep this value under review for 2015.

In coming to this decision the SEM Committee notes the comments from respondents that the PCAP event in February 2013 remains an extremely rare event and was the only time PCAP has been reached (without subsequent correction at resettlement) since the SEM was established. As part of this the SEM Committee recognises that the events that led to the application of PCAP in February are very particular and not an everyday occurrence.

The SEM Committee will however, keep this issue under review and will examine it again as part of the next policy parameters review in 2014.

The SEM Committee has therefore decided to leave PCAP unchanged at €1,000/MWh for the year 1 January to 31 December 2014.

It should also be noted that the section 4.12 of the Trading and Settlement Code gives the SEM Committee power to determine the PCAP from time to time should the need arise. The SEM Committee will therefore reconsider the value of PCAP in future where required by the Code.

5. Uplift Parameters

5.1. Proposals presented in the Consultation Paper

The Uplift values calculated over the optimisation time horizon are optimised to meet two objective functions:

1. Minimising Uplift revenues (the cost objective); and,
2. Minimising Shadow Price distortion (the profile objective).

These functions are weighted within the optimisation by two Uplift parameters, α and β . In addition, a third Uplift parameter, δ , constrains the overall impact on revenue of the Uplift calculations.

The Code defines that α and β are complementary, such that $0 \leq \alpha \leq 1$, $0 \leq \beta \leq 1$ and $\alpha + \beta = 1$. The Regulatory Authorities concluded in the Decision Paper on the 2010 Uplift parameter values (SEM-09-095) that $\alpha = 0$, $\beta = 1$, $\delta = 5$ were the most appropriate Uplift parameters and that they provided the most appropriate balance of costs and price stability. In considering the Uplift Parameter values for 2014, the RAs undertook further statistical analysis to examine the performance of Uplift which was included in the Consultation Paper (SEM-13-053) published on 6 August 2013. In particular the Consultation Paper included analysis using $\alpha = 1$, $\beta = 0$, $\delta = 5$ and $\alpha = 0.5$, $\beta = 0.5$, $\delta = 5$.

In the Consultation Paper, the SEM Committee proposed that further statistical analysis should be carried out over a three-month period using the values $\alpha = 0.1$; $\beta = 0.9$; and, $\delta = 5$. The SEM Committee also recommended that the final values of the Uplift Parameters for the year 2014 should be published later in the year to allow for time to complete this analysis.

5.2. Respondents' Comments

Members of EAI have deep concerns about the Uplift parameter proposals in the Consultation paper. They are of the view that the deadline in the TSC to finalise the parameters four months in advance of the year should be respected. Members of the EAI state that in their view any changes to Uplift parameters should be on the basis of robust analysis covering a timeline of 12 months and should consider seasonal effects, forced and planned outages etc. They also comment that a forward looking view as well as a historical analysis is called for.

EAI also argues that the proposal to change the existing parameters for 2014 and without 'compelling reason' before the end of 2013 undermines the legitimacy of the TSC. Furthermore it states that Participants have already concluded significant volumes of CFDs for 2014 and modifying the Uplift parameters after those hedges have been executed could expose the parties to material commercial losses/gains that would have accounted for in the strike prices for the various CFD products had they forewarning of a revised basis for SEM price formation.

Members of IWEA are of the view that the current paper presents limited analysis covering just one week in January. A data set covering a three-month period would be inadequate to support a change in Uplift parameters and a 12 month data set would be required to warrant making such a change. IWEA states that required timelines in the TSC will be purposely and significantly breached. In addition, the analysis to be completed in November will inform a decision without first taking the highly advisable and necessary steps of publishing the analysis and proposing a change in Uplift parameters for further consideration. It underlines that the consequences of potentially changing the Uplift parameters need to be very carefully considered, recognising that the damaging effect of increasing the volatility of SMP could more than outweigh any potential benefits of reducing the overall cost of Uplift.

PPB is of the view that detailed analysis is required before any changes to Uplift parameters should be implemented. PPB further argues that for analysis to be considered 'robust', data covering a minimum period of two years should be analysed. PPB also do not believe that it is acceptable to deviate from the governance requirements set out in the TSC by making a decision on the Uplift parameters for 2014 as late as December 2013. It states that if consideration is to be given to changes for 2015, this analysis needs to be completed and consulted upon as soon as possible to allow Participants to determine their risk management strategy and conduct hedging for 2015.

Energia made the additional point that it is critical to the interests of transparency and robustness that all stakeholders are given the opportunity to fully consider the analysis and respond to any proposed changes to the Uplift parameters. It warned that the consequences of potentially changing the Uplift parameters should be carefully considered, recognising that the damaging effect of increasing the volatility of SMP (increasing supplier risk, reducing liquidity and reducing the efficiency of interconnector trades) could more than outweigh the potential benefits of reducing the overall cost of Uplift.

BG Energy argues that the proposed revision of the Uplift parameters are unwarranted as the primary reason given for the RAs' 2007 choice of parameters remains valid today. With reference to the Consultation's market data, BG Energy states that compared to recent years, Uplift is performing well against its objectives. It further states that placing more emphasis on the Cost Objective over the Profile Objective will result in outcomes that are contrary to the original rationale for the Cost-Profile weighting; hinder the balanced achievement of Uplift objectives and; impact SEM price stability.

BG Energy suggests that if after further and more detailed analysis the RAs consider that changes are warranted, these should not be implemented until 2015 at the earliest as changes to the parameters for 2014 would undermine CFD and interconnector auctions that have already taken place.

Bord na Móna believes that more detailed analysis over a longer time span for the Uplift parameters needs to be completed and published prior to, or in parallel with, any consultation process being commenced to consider the merits of changing the existing values.

5.3. Provisional Decision

The RAs have asked SEMO to examine the impacts of using $\alpha=0.1$, $\beta=0.9$, $\delta=5$ and in particular to look at a data set covering three months, namely January 2013, April 2013 and July 2013.

The SEM Committee will confirm its decision to set Uplift Parameters $\alpha=0.1$, $\beta=0.9$, $\delta=5$ on 12 December 2013 following a review of the information from SEMO, due at the end of November.

The SEM Committee will publish this data in its raw form as soon as it has been received from SEMO.

5.4. Rationale

The SEM Committee has stated in previous consultations that using different parameters could lower the overall costs of Uplift to consumers, but would be expected to drive a lower correlation and increase the volatility of SMPs.

The SEM Committee also previously pointed out the possibility that increased price volatility could have negative impacts on cross border interconnector trade. However, the additional analysis carried out by SEMO using $\alpha=0.5$, $\beta=0.5$, $\delta=5$ as detailed in the Consultation Paper has not been carried out previously for the annual policy parameters Consultation. Initial Plexos modelling carried out within the RAs suggests that using $\alpha=0.1$, $\beta=0.9$, $\delta=5$ could reduce SMP by just over 1% without losing price stability.

The analysis has shown interesting results which the SEM Committee believed warranted further analysis. In particular the analysis shows that it might be possible to give greater weighting to the cost profile without an excessive increase in volatility.

While noting comments from industry which recommend analysis based on a 12-24 month period, the SEM Committee considers that the first month of three quarters has been chosen to ensure that the analysis is spread out over the seasons and is representative of the analysis year.

The SEM Committee is of the view that a reduction in SMP by over 1% is not insubstantial and if this saving can be made without undue distortion of the Profile Objective, then it is in the interests of the consumer that this option should be pursued.

The SEM Committee will not make a final decision on this matter until the data from SEMO has been received and analysed and where the SEM Committee has satisfied itself that no undue distortion of the profile would occur.

The SEM Committee must balance its statutory duties related to protection of consumers and the proper functioning of the market and is of the view that this change is not a disproportionate response given the potential gains for consumers and the expected minimum change to the market outcomes.

The SEM Committee does not believe that the change to Uplift parameters is as significant as some respondents have suggested and in particular does not believe that the legitimacy of the TSC is being undermined. While the SEM Committee would prefer to give the four months' notice as provided for in the TSC, it believes that in this case announcing modest changes to the parameters much closer to the end of the year is acceptable. From a process perspective, it should also be noted that the Regulatory Authorities are not a party to the Code, and accordingly not bound by its provisions.

Finally, the SEM Committee does not believe that this decision will result in significant losses or gains for Market Participants.

5.5. Next Steps

- SEMO will submit the Uplift parameter data set to the RAs at the end of November.
- The RAs will publish the data set once it is compiled.
- The SEM Committee will make a decision to set Uplift Parameters $\alpha=0.1$, $\beta=0.9$, $\delta=5$ on 12 December 2013 provided that the data set from SEMO does not give results showing an undue distortion of the Profile Objective.

6. Value of Lost Load

6.1. Background

The RAs are required under the Code to set a value for the Value of Lost Load (VoLL) in €/MWh four months before the beginning of the calendar year to which it applied. In AIPSEM-07-484, the RAs announced their decision, after due consideration of the responses to a Consultation Paper published on 2 July 2007, that:

- For the period from 1 November 2007 to 31 December 2008, the VoLL would be set to €10,000/MWh; and,
- Its value in subsequent calendar years would be determined by taking its values in the preceding year and up-rating it by applying the weighted average of the year-on-year increase in the Irish Harmonised Index of Consumer Prices (HICP) (using a weight of two-thirds) and the UK HICP (using a weighting of one-third) in the July of the preceding year by comparison with that a year earlier.

The sources for the data on HICPs were cited as the [Central Statistics Office](#) (CSO) in Ireland and the [Office for National Statistics in the UK](#).

6.2. Final Decision

The relevant data for the calculation of the 2014 value of VoLL using the specified methodology are as follows:

	Weight	July 2012	July 2013	% Change
Irish HICP (2005=100)	2/3	108.6	109.4	+0.74%%
UK HICP (2005=100)	1/3	122.5	125.8	+2.69%
Weighted Average	1			+1.39%

On this basis, given that VoLL for 2013 was €10,749.08/MWh

and using the specified methodology, VoLL for the calendar year 2014 will therefore be:

$$€10,749.08/\text{MWh} \times (+1.39\%) = 10,749.08 \times 1.0139 = \mathbf{€10,898.49/\text{MWh}}$$

7. Decision on the Policy Parameters for 2014

The SEM Committee hereby decides on the values of the policy parameters for the period 1 January to 31 December 2014 as follows:

- PCAP at €1,000/MWh;
- PFLOOR at minus €100/MWh;
- Uplift Parameters to be published on 12 December 2013.

In addition, the VoLL for the year 2014 has been calculated as €10,898.49/MWh