Policy Parameters 2016

Decision Paper

SEM-15-053

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1. Introduction

The SEM Trading and Settlement Code (the Code) 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-14-067) for the period from 1st January 2015 to 31st December 2015 that:

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

The recent Consultation Paper (SEM-15-042), published on 16th June 2015, undertook a review of the effectiveness of PCAP and PFLOOR with a view to setting the values for the period 1st January to 31st December 2016. The same values as have been used since the beginning of the market were proposed in the consultation paper. This paper provides a final decision on the matter, following receipt of respondent's comments.

The calculation of VOLL for 2016, 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 also required to determine three parameters used in the calculation of Uplift[1]. These are:

- 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 $\delta \geq 0$.

[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)

Following consultation, the SEM Committee last year decided (SEM-14-056) for the period from 1st January 2015 to 31 December 2015 that:

- α should be set to a value of 0.1;
- β should be set to a value of 0.9; and,
- δ should be set to a value of 5.

The Consultation Paper (SEM-15-042), published on 16th June 2015, presented some analysis of the behaviour of Uplift for the period May 2014 to April 2015 and proposed values for the three Uplift values (α, β and δ) for the year 2016. The same values as are used in 2015 were proposed in the Consultation Paper. This paper provides a final decision on the matter, following receipt of respondent's comments.

2. Comments from Respondents

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

- Power NI PPB
- SSE

Responses received are published with this Decision Paper.

3. PCAP /PFLOOR

3.1 Proposals presented in the Consultation Paper

The SEM Committee proposed to leave PCAP and PFLOOR unchanged at €1,000/MWh and minus €100/MWh for 2016. The Consultation Paper (SEM-15-042) published on 16th June 2015 contained analysis of recent data which supported this proposal.

3.2 Respondent's Comments

Neither respondent to the Consultation Paper had any specific comment on the and analysis and proposals in presented.

3.3 Final Decision

The SEM Committee has therefore decided to leave PCAP and PFLOOR unchanged at €1,000/MWh and minus €100/MWh respectively for the year 1st January to 31st December 2016.

It should also be noted that the Trading and Settlement Code gives the SEM Committee power to change the PCAP and PFLOOR which would be an option should the need arise.

4. Uplift Parameters

4.1 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 $\alpha + \beta = 1$. Prior to 2015, the Uplift parameters had been set to $\alpha = 0$, $\beta = 1$, $\delta = 5$ every year. In 2013 and 2014 further analysis was carried out and following consultation the uplift parameters were set to $\alpha = 0.1$, $\beta = 0.9$, $\delta = 5$ for 2015.

In considering the Uplift Parameter values for 2016, the RAs undertook statistical analysis to examine the performance of Uplift which was included in the Consultation Paper (SEM-15-042) published on 16th June 2015. In particular the paper examined the first four months (Jan-Apr 2015) where the new Uplift parameters were in operation. In that paper, the SEM Committee proposed that the values of the Uplift Parameters for the year 2016 should remain unchanged as follows:

- α should be set at 0.1;
- β should be set at 0.9; and,
- δ should be set at 5.

In the Consultation Paper the RAs did recognise that a significantly reduced correlation between the SMP and System Demand could lead to negative impacts in the market with regard to having correct price signals for generator and/or interconnector utilisation. However given the limited data available and that the impact does not appear to be excessive at this stage, the RAs stated that they will nonetheless continue to closely monitor this correlation along with other related indicators throughout the year as further data becomes available.

4.2 Respondent's Comments

Both Power NI PPB and SSE made specific comment on the uplift parameters proposals.

Power NI PPB stated their disappointment that the uplift parameters were changed for 2015 based on analysis of only four months of data. They also stated their belief that good regulatory practice would have required that the uplift parameters should only have been modified after robust analysis and consideration of any proposed change.

Power NI PPB's key concern in relation to the data presented was the reduction in correlation between SMP and demand. PPB also pointed out some inconsistencies in the Consultation Paper between the dates presented in different paragraphs.

While putting forward their concerns, PPB was of the view that more analysis should be carried out and that if the correlation between SMP and demand reduces further, consideration should be given to changing the uplift parameters back to the values of $\alpha = 0$, $\beta = 1$, $\delta = 5$.

SSE reiterated their view that the change in uplift parameters for 2015 was unwarranted. In addition, SSE expressed concerns that the profile objective has been negatively impacted and that price less closely reflects fundamentals.

From a supplier and interconnector user perspective, SSE appears to be of the view that the reduced correlation between SMP and demand is not useful. In addition, SSE suggests that customers may see no benefit in the change in parameters given that forward contracts won't yet take it into account and that there may be reduction in the efficiency of interconnector flows.

4.3 SEM Committee Response and Final Decision

The SEM Committee welcomes the responses received and the clear articulation of the concerns.

In relation to the Consultation Paper; PPB pointed out a number of inconsistencies in the paper in relation to date ranges. This was an error in the Consultation Paper. All data 2015 on uplift parameters referred to the four months from January to April 2015.

Regarding PPBs concerns that the uplift parameters changes were made based on insufficiently robust analysis, the SEM Committee disagrees. The analysis looked at one month from each quarter and was appropriate and proportional to the modest changes being proposed. The initial data available for 2015 would appear to support this.

The SEM Committee notes the concerns regarding the reduction in the correlation between SMP and demand. Given the data available to date, the SEM Committee is of the view that it is too early to draw definitive conclusions and is of the view that this is best done in 2016 when setting the 2017 parameters. There will inevitably be a reduction in correlation between demand and SMP given the reduction in weighting to the profile objective. In

addition, the SEM has experienced increased exports which of themselves may be having an impact on the correlation between demand and SMP.

Analysis of the first six months of 2015 (adding May and June to the Consultation Paper data) suggests that the correlation reduces slightly further to 0.45 from 0.46. Interestingly however, analysis of January to end June 2014 shows a correlation of 0.48, down from a correlation of 0.55 for the first four months of 2014 only.

The RAs are still of the view, however, that it's too early to make any definitive conclusions on the change in uplift parameters, notwithstanding the reduction in correlation between demand and SMP.

Outside of the two responses to the Consultation Paper and the SSE response in particular, the RAs have not received any other representation from interested parties on this matter. In particular this has not been raised with the MMU as a significant issue in terms of market outcomes.

It is not clear that interconnector flows have become less optimal as a result of the Uplift Parameter change. However, this can be kept under review by the RAs.

The SEM Committee has decided to leave the Uplift parameters unchanged for the period 1st January to 31st December 2016 and that these should be as follows:

- α should be set at 0.1;
- β should be set at 0.9; and,
- δ should be set at 5.

5. Value of Lost Load

5.1 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 AIP-SEM-07-484, the RAs announced their decision, after due consideration of the responses to a Consultation Paper published in 2nd July 2007, that:

- For the period from 1st November 2007 to 31st 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.

4.2 Final Decision

The relevant data for the calculation of the 2016 value of VoLL using the specified methodology are as follows:

	Weight	July 2014	July 2015	% Change
Irish HICP (2005=100)	2/3	109.9	110.1	+0.18%
UK HICP (2005=100)	1/3	127.8	128.0	+0.16%
Weighted Average	1			+0.17%

On this basis, given that VoLL for 2015 was €10,988.9/MWh and using the specified methodology, VoLL for the calendar year 2016 will therefore be:

€10,998.9/MWh x (+0.17%) = 10,998.9 x 1.01735 = **€11,017.98/MWh**

6. Decision on the Policy Parameters for 2016

As detailed in this paper, the SEM Committee has decided to leave the values of the policy parameters for the period 1st January to 31st December 2016 unchanged as follows:

- PCAP at €1,000/MWh;
- PFLOOR at minus €100/MWh;
- Uplift Parameter α to be set at 0.1;
- Uplift Parameter β to be set at 0.9; and,
- Uplift Parameter δ to be set at 5.

In addition, the VoLL for the year 2016 has been calculated as €11,017.98/MWh.