

CPM Medium Term Review - Work Packages 1-5

Synergen's response to SEM-10-046

Introduction

This paper is Synergen's response to the consultation paper SEM-10-046 published by in the RAs on 23rd July 2010. Synergen has no objection to this response being published.

The paper addresses the first 5 of the 12 "work packages" outlined in SEM-09-015 last November. From Synergen's perspective it would have been desirable to consult on all of the work packages within the same consultation paper.

Whilst this split consultation approach was identified in SEM-09-015, Synergen does not believe that, in particular, there is an "historic" vs "enhancement" split as identified. In particular, Synergen believes that workstreams 3 and 4 regarding the treatment of the BNE are not separable from workstream 7 – which is the subject of the next consultation. In particular, Synergen notes that the RAs specifically consulted on the "Fixed Costs of a Best New Entrant Peaking Plant Methodology" (SEM-09-023) in March 2009, receiving 16 responses. The issues considered in that paper related to the treatment of cost elements in the BNE methodology, and thus Synergen would have preferred to see these consulted on at this stage, along side the assessment of fuel options.

Synergen therefore reserves the right to revise the opinions set out in this paper in the light of new information provided by the RAs in future related consultations.

The work packages are commented on in turn in the following sections.

1 Historic Analysis of the CPM

Regarding the analysis presented in SEM-10-046 Synergen has no comments on Figure 3.0 to Figure 3.7.

Regarding Figure 3.8 to Figure 3.14 the data is limited to the first half of 2009 rather than from SEM Go Live. Thus, whilst the Figures presented provide some insight into the relationships between payments and margin, it is not possible to determine whether this information is truly representative of CPM outcomes over the last three years. Synergen therefore requests that the RAs undertake and publish comparable analysis of the CPM across the entire duration of the SEM as the current analysis on a limited data window is an insufficient basis for reform.

Regarding the information set out in Figure 3.12 and Figure 3.14, we believe that not only should the relationship between margin and CPM payments be considered, but the relationship with SMP also needs to be examined to assess the extent to which CPM payments are correlated to SMP.

2 Review of Capacity Requirement

The present practice is to utilise a target SEM wide FOP (Forced Outage Probability) as part of the assessment of margin for the CPM. Essentially, the RAs make assumptions about an efficient outage rate for generation as a whole across the SEM. The existing FOP assumptions are based on this being based on historic rates in NI prior to the SEM start, and the adoption of these values on an SEM wide basis was designed to reflect the rates that an efficient operator may be able to achieve in practice (given an incentive to do so).

If the use of the FOP in the CPM methodology is to represent a meaningful incentive to improve availability, then the “target” needs to be both realistic and achievable over time – as measured by outturn FORs (Forced Outage Rate). Further, given the fine conceptual balance of the rewards in the SEM (i.e. SRMC bidding plus CPM revenues plus AS revenues being compensatory) then it is important that all elements of the CPM calculation are set in a transparent and neutral manner. If this is not the case, there is a danger that the rewards are insufficient. Once the SEM becomes more of a market, and less of a mechanism, then this may be corrected through market mechanisms.

The questions that arise are, should the FOP be:

- Set by the RAs based on their own judgement based on an “efficient target”?; or
- Set on the basis of existing (e.g. rolling average) FORs for plant in the SEM?

The paper notes that there has been a significant improvement in FORs since SEM start. This is not stated as being a consequence of the use of a fixed FOP of 4.23% within the CPM mechanism, although no alternative explanations are set out, and hence the implication is that the incentive is proving effective. However, Synergen believes that there are a number of other factors that have most likely contributed to the improvement of FORs. These include, but are not necessarily limited to:

- The change in plant mix – notably the retirement of older plant and new entry;
- The change in plant mix – notably the increase in wind generation; and
- The incentives on plant to be available due to contract exposures – notably plant subject to Directed Contracts, but the commercial incentives would equally apply to any plant with price / volume exposure to SMP.

Regarding the performance of plant in response to the FOP incentive, Synergen notes that its FOR has increased since the start of the SEM. In practice, this has been due to unforeseen technical issues, and is unrelated to any incentives via the CPM. It is our view that:

- CPM incentives are only one, minor, incentive to plant to be available; and
- Setting FOPs at levels below likely outcomes serves to suppress capacity payment levels, and thus undervalue capacity.

Consequently, Synergen believes that there has to be a neutral expectation of FOP. The setting of FOP to assumed efficient levels (in practice expected to be below actual levels of FOR) is likely to serve only to reduce the CPM pot and hence suppress the incentive.

Synergen suggests that the FOP is set on the basis of a rolling average FOR.

3 Deduction of IMR & AS & BNE Peaker Options

Synergen regards the issues raised in “work package 3” as the most significant within this consultation. This is because they relate directly to the conceptual basis of the CPM.

In section 5.2 the RAs set out the basis for the existing methodology regarding the deduction of IMR from the fixed costs of the BNE. In essence, the issue that arises with the present methodology is that when anticipated margin is tight, and new entry should be signalled, the modelling approach for IMR assessment is likely to produce relatively high SMPs. Assuming the forecast of IMR is relatively accurate, SMP may be set by the BNE, but more likely by existing OCGT plant that will be less efficient and therefore more expensive. Thus the BNE may be considered to obtain significant IMR from the market SMPs in addition to any PCAP events that may occur and thus the overall assessment will be that the IMRs will be high for the BNE. This is consistent with the original intent of the CPM as conceived by the RAs – in short the BNE does not need as much CPM reward when the margin is tight as under the SEM regime it will be expected to receive proportionally more revenue via SMP related energy payments. This effect has been understood since the CPMs inception and was articulated by the RAs during the initial CPM development¹. The questions that thus arise are:

- From an RA perspective, given this effect was known when the CPM was devised, is there any change in the underpinning rationale that supported the existing methodology? Synergen notes the SEMC desire to remove volatility (if possible) but in our view, this is only desirable IF the underlying economic signals are maintained.
- Whether, even if the existing approach is intellectually sound (which subject to modelling accuracy we consider to be the case) there are valid arguments for considering approaches that smooth the IMR element of the CPM calculation?

Option 1 - IMR deducted based on an assumed VoLL for 8h per year

Both options 1 and 2 utilise an explicit assumption of prices at a cap level – in essence the BNE peaker earns IMR in these 8h (less an adjustment for FoR). The concept of IMR in the context of the CPM is that it represents realisable energy revenues for the BNE. Thus, energy revenues and CPM payments to the BNE are envisaged to be compensatory.

Whilst VoLL exists within the calculative methodology in setting the capacity requirement, its use as suggested in Option 1 appears to be contrary to the economic

¹ Add historic source for this.

rationale of the CPM. Revenue earned by the peaker would not operate as described for an actual plant as energy payment revenues under the T&SC are capped at PCAP. The theoretical IMR revenues set out for the BNE are thus overstated and unachievable in practice. The effect of this would be to under-reward the BNE.

In terms of this as a fixed cost contribution to other plant this option would systemically suppress the CPM. In Synergen's view this is unacceptable given the assumption that SMP plus CPM plus other pool revenues for an efficient BNE are compensatory. Given the bidding rules placed on generators by the BCoP (i.e. even if the CPM is inadequate generators cannot bid greater than SRMC) then there is a danger that overall revenues will be inadequate and inefficient exit / insufficient entry will result.

Synergen notes that there is no economic rationale presented in the consultation paper for this option.

Option 2 - IMR deducted based on an assumed PCAP for 8h per year

Option 2 appears to be theoretically consistent with the principles of the contribution of a BNE's IMR to its fixed cost requirements – at least over time. Notably, BNE peaker revenues at PCAP (less assumptions of FOR) are achievable under actual market operations. The driver of the CPM pot size (as driven by the BNE element) would thus come down to anticipated margin, and be less sensitive to modelling outcomes.

Synergen assumes the RAs' rationale for Option 2 is that it would (over time) be equivalent to Option 3 if the modelling under Option 3 were accurate. Thus the economic rationale for this approach is to smooth out the assessment of IMR across years.

Option 3 – Status Quo

Under the existing methodology, if the BNE runs in the Plexos runs where it is included, CPM requirements tends to be lower. This assumes that SMPs are relatively high, and that plant other than the BNE is marginal at times of higher prices. Compared to Option 2, the IMR depends on whether the IMR based on $8\text{hrs} \times (\text{PCAP} - \text{BID}_{\text{BNE Peaker}})$ is less or more than $X \text{ hrs} \times (\text{SMP} - \text{BID}_{\text{BNE Peaker}})$.

Option Summary

In terms of the merits of each option, Synergen rejects Option 1 as it does not reflect real achievable BNE revenues from the Pool. Regarding Options 2 and 3, these are both consistent with the basis of the CPM design, and assumes that the RAs intension is for these to be, over time, equivalent. Option 2 would provide some increased certainty to both customers, and potential new entrants.

Regarding the RA questions posed in section 5.4:

- Synergen suggests that Option 1 is rejected, and that Option 2 is investigated in more detail to confirm that it is equivalent to the Option 3 over an investment time horizon.
- Synergen does not consider that the CPM is conceptually flawed as conceived, and there is no evidence presented to demonstrate the case for it being flawed.
- Synergen concurs that the Ancillary Services (AS) revenues should be deducted from BNE fixed costs when calculating BNE revenues.

4 BNE Peaker Plant Fuel Options

Synergen has limited comments on this work-package, but does wish to comment on the discussion set out regarding the observation that the CPM does not value the flexible characteristics of pumped storage units (section 6.2.3).

Synergen believes that the purpose of the CPM and the AS mechanism are distinct, and need to remain so. The CPM places incentives for capacity to be available through both a long-term investment signal and medium term and short-term availability signals. Whilst Synergen does not regard the ex-post payments as an effective ex-ante availability incentive, they do reward (with the benefit of hindsight) capacity at the points where margin was tight.

The CPM is not designed to deliver operational flexibility – merely to have MW available at given points in time. Synergen concurs that increased flexibility is likely to be required from a combination of conventional plant response, and potentially DSM, in the future in order to meet changing operational requirements associated with the increasing volumes of intermittent generation on the system. In order to meet this requirements, AS products may need to develop, and additional funds may need to be allocated to AS provision. This should be explicitly separated from any issues associated with the CPM and what it seeks to reward.

5 Exchange Rate for the CPM

The RAs make a number of valid and positive observations regarding the exchange rate used for the CPM. Synergen specifically agrees that:

- The exchange rate should be fixed annually for each year using forward exchange rates; and
- There should be no market segmentation of the CPM.

In addition, Synergen believes that the RAs should actively consider adjusting the CPM pots to reflect the number of days within each month. Synergen notes that based on the data in Appendix 2, the CPM pot in January 2008 was higher than the pot in February that year by about €1 million. However, the payments per day were approximately 5% higher in January than in February. This is not based on any intended allocation of daily revenues, but a consequence of the calculative methodology. To the extent that the CPM provides a meaningful signal, the signal is skewed as the methodology fails to make adjustments for the number of days in each month, and this should be corrected.