

Fixed Cost of a New Entrant Peaking Plant for the Capacity Payment Mechanism

A response by Synergen

1 Introduction

This note is Synergen's formal response to the consultation paper AIP/SEM/07/14 "Fixed Cost of a New Entrant Peaking Plant for the Capacity Payment Mechanism" published in February 2007.

2 Gas Capacity Costs

In AIP/SEM/07/14, the RAs sought views on the liquidity of the secondary market in gas capacity, and the effect of the proposed changes to BGE's gas capacity booking arrangements, as per EC 1775. Synergen does not accept the primary supposition that a BNE Peaking Plant would be able to effectively trade out an unused gas capacity or buy gas capacity day ahead, thus reducing its own cost base as consequence. Such a view is unsupported at this time.

The key issue is not the general development within the Irish gas capacity market rather the likely market liquidity and daily gas capacity prices at times of system stress. It is not clear to Synergen that a BNE Peaking Plant would be able to buy gas capacity at times of electricity system peak as we understand that this daily gas capacity will be non-firm. Furthermore, it is not prudent to assume that all unwanted portions of an annual gas capacity can be sold at anything other than a "fire sale" price. Therefore, Synergen considers it prudent to assume (until the gas capacity market has matured) that: (1) there is no liquidity in the secondary gas capacity and (2) the off peak value of gas capacity is low. Accordingly, the full costs of annual gas capacity should be included within the BNE Peaking Plant cost basis.

3 WACC

The BNE Peaking Plant's overall revenue is likely to comprise a higher proportion of CPM payments than a baseload plant – which would expect to see a majority of its revenue come from energy payments. The CPM regime (as currently envisaged) is subject to regulatory discretion in a number of areas when setting the level, and potentially the allocation of CPM revenues. As uncertainty increases the risk profile of a generator, the BNE Peaking Plant can reasonably be expected to have a higher risk profile compared with a BNE Base Loader. Thus Synergen does not accept RAs assertion that the risk profile for a BNE Peaking Plant is the same as for a BNE base load plant. Thus, the RAs should allow the BNE a higher WACC than the 7.83% suggested in AIP/SEM/07/14.

4 Infra Marginal Rent Estimation

The estimate of infra marginal rent is a key element within the CPM calculation process and Synergen comments on a number of aspects below.

4.1 Method

Section VII of AIP/SEM/07/14 presents two methods for the calculation of Infra Marginal Rents. Method 1 is unduly simplistic and there is no assurance that the iterative approach described will provide for convergence. Consequently, method 1 should be discounted. Method 2 (a) may give rise to unexpected outcomes due to software vagaries such as rounding errors and therefore should also be discounted. Therefore, Synergen considers Method 2 (b) to be the only viable option.

4.2 Interval

The RAs' hourly modelling is of concern. It is plausible that PLEXOS will schedule a plant for a one hour period but with exactly the same data the ABB market software would only schedule the unit for 30mins - therefore halving the related infra marginal income. This matter is potentially material, in the extreme the estimated infra marginal rent could be double that like to arise once the SEM is live. It is unclear whether the RAs present modelling approach is expected to be based on half-hourly modelling (but previous modelling has not been). Synergen believes that any modelling that is utilised to underpin commercial decisions should be clearly based on a model that is validated as being wholly aligned to the T&SC.

4.3 SRMC Assumptions

In order to produce a reasonable estimate of infra marginal rent for the BNE Peaking Plant it is important to ensure that the key assumptions are robust. A key element is the SRMC bidding assumptions for all plant.

The slides from a second workshop on the PLEXOS model have recently been published as AIP/SEM/07/43 and this document highlights a number of potential components of SRMC, that had not previously been assumed within the modeling. These were set out as:

- loss of capacity payments from a constrained plant;
- cost of credit lines and broker fees;
- gas Transport Charges;
- higher SRMC for testing days of back up fuel; and
- costs of switching from main to back up fuel to increase maximum capacity.

Synergen has previously sought assurances that the combination of the CPM and SMP (assuming SRMC based bidding) will be remunerative for an efficient new entrant. In order to ensure this there must be a clear understanding regarding:

- which costs are recovered through SRMC based bidding; and
- which costs are assumed to be part of the scarcity rent received by the BNE Peaking Plant (essentially its total costs less those recovered through its pool and reserve payment revenues).

Synergen believes that there should be an exhaustive list of generator costs set out, and a clear statement of whether these fall into SRMC bidding or CPM revenues. To the extent that costs fall within SRMC it will be necessary to demonstrate that the assumed bids of the BNE Peaking Plant (to derive its assumed pool revenues in the modeling) explicitly include these costs. Further, there should be a further demonstration that scarcity rents assumed for the BNE Peaking Plant include all non SRMC costs identified.

Synergen believes that further effort is required by the RAs to consider each and every element of generators costs and clarify their treatment (SRMC or CPM). This can then be used to verify that all costs are included in the mechanistic elements of price setting CPM, and the application of SRMC principles. It should then be possible to demonstrate that SRMC bidding plus CPM is remunerative. It may be appropriate for this to be captured with the matters KEMA are presently considering.

5 Summary

In summary, Synergen believes:

1. the full gas capacity costs on an annual basis needed to be reflected within the CPM;
2. the assumed WACC for a BNE Peaking Plant should be higher than 7.83% given the regulatory risks;
3. infra marginal rents should be estimated using Method 2 (b) based on half-hourly SEM modelling; and
4. the Regulatory Authorities must demonstrate that CPM plus SRMC bidding delivers revenue adequacy.