



Response to
Capacity Payments Medium Term Review
Work Package 6 onwards
Discussion Paper
(SEM/11/019)

7th July, 2011

Given the stage of development of the SEM it is indeed useful to conduct a review of its core features, of which the CPM is one, to measure how aligned to original design and principles the actual implementation and outturn operations prove to be, as well as to identify any refinements that may need to be made to those initial principles. In this light the review of the CPM has been quite constructive and the analyses so far have been instructive regarding the workings of the CPM. One of the lessons to be drawn so far from the review is that the CPM functions broadly in line with its design intentions and has achieved on its diverse suite of objectives. This would be reasonably comforting to market participants as well as the RAs and the designers of the SEM.

The review overall however has also indicated areas that may bear some improvements. These identified areas would under continuity expectations require further consideration. However in the intervening period of the review the primary risk factor for the SEM has shifted from non-optimal functioning of its various features to its co-habitability with the various proposed shapes for a European Electricity Target Model. While that has not been definitely specified the general consensus holds that significant difficulties exist with any efforts to integrate the SEM into a wider European regional market grouping. This difficulty has already manifested itself in the Intra-Day Trading Modification process in the SEM where increased market coupling with BETTA is being sought. The case for introducing a Day-Ahead Market from all indications is even more vexing.

In the context of this changed (and indeed still fluxing) landscape, the significant resources it is requiring to understand its outlines and spec for it, we would be of the very strong view that given the reassurance from the current review that the CPM is functioning in general with its design intentions, significant attention and resources need to be redirected to addressing the requirements of market coupling and European regional market integration. Given the absence of any material flaws with the operation of the CPM, granted the identification of improvement potentials, we would recommend that market development efforts should focus on more active engagement with and influencing of the European processes for developing and the implementing the Framework Guidelines and Network Codes. The impact of these developments would have far greater significance for the future of SEM than any optimisation to CPM at this stage.

With those general comments we proceed to the substantive matters raised in the current consultation paper of the CPM review.

Capacity Credit

Underlying the current discussion around the CPM in our view is the issue of revenue adequacy for generating units. Recalling from the SEM HLD the CPM was introduced to complement an energy market, the aim being to “take some volatility out of the energy market by shifting the revenue required from price spikes to revenues paid to generators through another mechanism”¹. In designing the CPM a balancing act was to ensure that generators were being adequately remunerated but not too much so as to protect consumers. From the operational history of the SEM it is evident that the objective of muting volatility has to some degree been achieved. What is not clear in our view is whether the distribution of revenue recovery between the energy and capacity markets has enabled sufficient revenues for generators providing those services. In essence the issue as we see it is not about a deficiency in the CPM as an independent mechanism, in the manner in which it has been analysed in this workstream, but an insufficiency in the conjunctive objective of ensuring adequate revenues for generators from an energy market and a capacity mechanism working in tandem. Phrasing the problem as a matter of misdistribution of capacity payments between generator types misses the substantive core of the issue.

Applying a Capacity Credit methodology or rebalancing of the CPM payments would not in our view resolve revenue adequacy. While important, those are optimisation issues relative to the elemental matter of revenue adequacy. For conventional generation, remuneration is essentially SMP + CPM but with SMP being the more significant stream of the two. Given the SRMC basis of the SMP calculation, in the declining marginal cost curve situation increasingly evident in the SEM as the proportion of wind generation grows relative to the capacity requirement (which has itself been significantly affected by the economic downturn), the depression in the levels of energy prices feeds directly into this issue of revenue adequacy. In our view it is within this interplay that a viable solution would be found and it is the co-working of SMP and CPM mechanism that needs to be addressed. Independent adjustments to CPM cannot address this matter and even any contributions to be achieved from such an action would only funnel the underlying issue to yet another mechanism – REFIT.

As the RAs note, the revenue stream of wind is subject to two regulated components – CPM and REFIT and thus consideration of CPM cannot be made in isolation to REFIT. From our argument above adjustment considerations cannot be made, not just in isolation to REFIT, but as well in isolation to SMP. The matter is about addressing the various bundling of payments streams to the different generator types that make up the SEM mix and ensuring that those various permutations all work to provide revenue adequacy to all types of SEM generators. Only when that is done would it make sense to start tweaking the internals of those mechanisms in an independent fashion.

¹ Capacity Payment Mechanism and Reserve Charging High Level Decision Paper (AIP/SEM/53/05) p.5

There various ways to address the various payment streams. For the CPM itself, the calculation assumptions used in determining the BNE would need to better reflect prevailing market conditions. For REFIT one often suggested improvement would be to base it on the availability of a wind power unit to generate electricity, and not its actual generation. This would apply to all classes of SEM wind units and if not, the classification criteria would need to be more tightly specified in contrast to being based on satisfying unrelated requirements. This adjustment to REFIT would be to counteract the effect of increasing constraints on wind power units. But we are quite aware that REFIT is not within the remit of the RAs.

For SMP, one possible option would be to co-optimize energy with reserves. This may however be viewed as contrary to the SEM design philosophy of an unconstrained schedule. Another option might be to run the SEM MSP twice following each gate closure, once with wind in the schedule and then without. This mechanism would effectively delineate and make visible the economic value of wind within the energy market, value that is already implicitly enjoyed wholly by consumers. Subsequently, a determination can be made as to the distribution of this economic utility between consumers and producers. Such a mechanism would contribute to counteracting the effects of the declining marginal cost curve situation.

The point of outlining these various options is not to proffer a preferred solution. It is simply to broaden out the debate away from a narrow focus on adjustments to the CPM as a means of addressing what in our view is an all-generator revenue adequacy issue.

Interconnectors

While differentials in prices between SEM and BETTA would be prime drivers of trades between the two markets, such trades as may be possible may not happen for the mere fact of market misalignment between the two, even with significant price differentials. On the order of priority, it is our view that it would be more useful to spend effort on procuring more effective market coupling between the two markets as opposed to any marginal benefits that a different charging methodology would achieve.

CPM and Flexibility

We share the RAs view that the CPM and the AS revenue payment streams have two separate objectives and should remain separate. While there would be an impact on CPM, the more important perspective would be the impact of overall generator adequacy. Again as we fleetingly made mention of previously, consideration may be made to co-optimisation of energy with another system service.

Penalties

From a general standpoint that incentivising performance is a desirable goal, we wonder whether penalties for underperformance are not technical matters and hence under the remit of the Grid Code? The events highlighted in the footnote on page 24 of the consultation – failure to start, ramp or run-up – indeed indicate that such is the case. If these are not existing penalties in the Grid Code or the levels of penalties are insufficient to provide the required signals, then the best course of action would be to remedy that; we would caution against a shift of those penalties into the CPM mechanism.

However, a point that may bear consideration would be the de-rating, perhaps temporary, of the maximum Eligible Availability of plant from installed capacity to actual capability. This could be achieved employing a testing regime by the SO and ensure that the SEM is not paying for nameplate capacity but for viable capacity.

Treatment of New Entrants

In our view the case for a new entrant guarantee is not demonstrably clear. That not withstanding the increased regulatory risk it poses as well as the potential undermining of SEM HLD principles certainly count against it. Relating this specific issue back to our underlying view of the problem that needs to be addressed, that of revenue adequacy, new entrants would be better attracted by a comprehensive and sustainable market framework than one that created exceptions for an initial period of time without clarity of what subsequent periods would bring. That uncertainty of later periods, unless entire project return projections are recovered in the initial period (and even then as subsequent costs could erode earlier profits), would most certainly deter the rational investor.

Distribution of Payments

The discussion around distribution of capacity payments essentially revolves around the question of whether the payments are for capacity adequacy or for availability. Extrapolating from the design logic, the CPM as implemented is not an either-or but a balancing of requirements to ensure security of the system by providing for capacity adequacy in the long-term without sacrificing the short-term needs for making capacity available. The current distribution of SEM represents that balancing of requirements and in our view still represents the most reasonable trade-off.

With that said, a specific argument against a rebalancing of capacity payments towards a more ex-post weighting is that, in the context of achieving closer coupling to BETTA as well as broader regional integration of European electricity markets, such a rebalancing increases

the hurdles towards such integration goals. Such rebalancing would increase the uncertainty in value of cross-border trades, potentially inhibiting possible but marginal transactions.

Flattening Power Factor

In light of our foregoing comments, we would view that maintenance of the dampening factor at this stage is essential.

SOCAP Model

Given the uncertainty surrounding the status of the SOCAP Model, as well as the high specialisation inherent in its mathematical formulation, our preference would be to have a demonstration workshop to examine the model at length. On that basis we would not be commenting on the SOCAP Model at this time.

Shaping Supplier Capacity Charges

There is merit in considering the alignment of capacity charges with capacity payments. However our view is that such a move cannot be made independent of significant developments in a number of other areas. The consultation paper refers to maximisation of economic utility by sending signals to consumers. While this is fine in theory it does pose some design and practical problems. From a design perspective, price spikes were deliberately muted in the energy component of the market to be complemented by a more stable capacity element. However the more serious difficulty relates to the practicality of consumers being able to respond to such price signals. There is no value in signalling if the intended recipients cannot respond to such.

In the SEM currently, there are quite significant price differentials between peak and non-peak electricity in the energy market, yet there is weak evidence that this has signalled much change in consumption patterns. A number of factors contribute to this, the ex-post nature of the market being one. But fundamentally given that while the RAs view the SEM as now mature, the associated retail markets are not, with the outcome that sufficient competition has yet to firmly take hold and drive the development of differentiated products to encapsulate those signalling. Beyond the development of such products progressively following from the maturation of retail markets, the workstreams on Smart Metering and Demand Side Response also indicate that the tools to provide visibility of electricity price signalling as well as enable a rational response to them are still largely not readily available to consumers.

Thus while we agree with the theoretical underpinnings of economic utility maximisation, we would counter that it presupposes more elasticity (otherwise response-ability) on the demand side. This clearly is not yet the case.

To discuss this paper contact:

Emeka Chukwureh

emeka.chukwureh@sserenewables.com