EirGrid Group Response

SEM-011-019

CPM Medium Term Review - Work Packages 6 onwards

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Summary Position

EirGrid, comprising the Transmission System Operator (TSO) in Ireland (IE), the System Operator Northern Ireland Ltd. (SONI) in Northern Ireland (NI) and the Single Electricity Market Operator (SEMO), welcomes the opportunity to respond to the consultation "SEM-011-019 - CPM Medium Term Review – Work Packages 6 onwards".

EirGrid believes that developments or decisions made from the CPM medium term review need to be cognisant of the work that is ongoing in other SEM Committee work streams. EirGrid recognises that the SEM Committee's principal objective in relation to the SEM is to protect the interests of consumers on the island, and EirGrid appreciates that any decisions taken in the context of the SEM must be balanced and consistent. Therefore EirGrid would support a work plan to integrate the work streams with a specific focus on revenue streams in order to achieve the best outcome in the interests of the consumer.

In general, there is agreement that the variable component of the Capacity Payment Mechanism (CPM) does not adequately meet the objectives of the CPM, which is to provide incentives for investment and the correct signals for availability.

EirGrid believes that the variable component of the CPM undermines the signal for availability in the ex-post and also adds a significant level of complexity to the mechanism. Therefore, it is our view that the dual objectives of the SEM could be better met with a combination of fixed and ex-post payments and that the variable component is not required. Based on this rationale EirGrid recommends that the fixed capacity payment proportion be increased to 50% and the ex-post capacity payment proportion be increased to 50% effectively therefore reducing the variable capacity payment proportion to 0%.

In conjunction with reducing the variable proportion to 0%, EirGrid recommends a complementary change to the Flatting Power Factor (FPF). The current value of 0.35 was recommended by the System Operators in the annual FPF report[1] in the context of the FPF applying to both the variable and ex-post payments. It is our view that this value is too low and overly dampens the Loss of Load Probability (LOLP) signal. A low value was chosen to ensure that significant amounts of the variable payment are not placed in too few trading periods as the actual margin may bear little resemblance to the forecast margin; however, if the variable component is reduced to 0% as set out above then EirGrid would recommend

[1] SEM-10-65a Proposed Value for the Flattening Power Factor for the year 2011

that the FPF is increased to 0.5 to place greater emphasis on times of tighter margin in the ex-post payment.

EirGrid notes that a change in the FPF may result in a shift in payments across technology types and we acknowledge that in achieving a better signal there are consequential impacts on extraneous support systems. This change would therefore require consideration in terms of the overall cost to the consumer. EirGrid believes that on balance an increase in volatility in the ex-post portion better meets the objectives of the CPM. While EirGrid appreciates the intentions of the RAs in regard to their SOCAP model, we would not be in favour of such a model and believe that much of the benefits of such a model could be more efficiently realised using a combination of the fixed and ex-post payments only with a higher value for the FPF.

All of the above can be achieved with no changes to systems. The payment ratios and FPF are subject to annual consultation. This would allow for a scaled transition if required so that regulatory risk can be minimised and generators have sufficient time to respond by investing in the right plant.

EirGrid believes the lens for the treatment of interconnectors should be as for other sources of capacity and based on utilisability of the capacity services provided. Any changes made to the CPM should consider new interconnectors and future trading arrangements and may require different arrangements from those which have pertained heretofore. This reflects comments made by EirGrid to previous consultations on the CPM. With regard to exit signals, EirGrid would also like to reiterate comments made to previous consultations whereby we believe further consideration may be required as to whether the CPM provides appropriate exit signals and whether the absence of these signals distorts the market.

The final decision needs to be cognisant of the wider issues which impact on a range of SEM Committee work streams specifically Ancillary Services (AS), Principles of Scheduling and Dispatch, Demand Side Vision, Intra Day Trading, Day Ahead Market and future Market Coupling. EirGrid is examining the changing needs of the all-island power system in the context of the governmental renewable targets and the evolving generation portfolio, and has recently reported to the SEM Committee on this work. EirGrid would like to reiterate the importance of Ancillary Services payments and the current relationship to the CPM, resulting from the mechanism for determination of the Capacity Pot.

EirGrid would be happy to meet with the Regulatory Authorities to discuss any aspect of our response.

Appendix 1

Response to Questions:

Please see the response and recommendations above. EirGrid has provided some additional detail in answer to some of the questions posed specifically on payment streams and the flattening power factor.

CPM (current mechanism)

The RAs believe it is necessary to strike a balance between the ex-ante and ex-post elements such that the signal from one element does not "swamp" the signal from the other element. The question to ask is what is the correct balance between these payments, taking into account the objectives of the SEM?

Is it better to be 100% ex-post and reward availability when margins are at the tightest?

Is it better to incentivise new investment and provide stable long term revenue stream by offering 100% fixed?

Should the design of the distribution allocations be changed? Should the current values be maintained?

EirGrid has articulated the view in the annual report on the FPF that two FPFs are required. The problem with changing the FPF is that any positive effect on the ex-post component is eroded by an adverse effect on the variable component. This viewpoint was based on there being both a variable and ex-post payment;

It may be useful to revisit the rationale regarding the three payment streams:

The fixed component of the CPM furthers the objective that the CPM should provide stable revenue to generators. The amounts available in every period of the year are fixed at the beginning of the year in proportion to the forecast demand i.e. proportionally more payments are available in trading periods of higher demand. This component aligns with generators' (and investors') requirements for stable and predictable revenue streams.

The ex-post component of the CPM furthers the objective that the availability should be valued most when the system needs it most. The value of the availability in every period varies inversely to the margin and is calculated ex-post based on the actual margin i.e. more payments are available in trading periods of tighter margin. This component aligns with the System Operators requirement to ensure secure, reliable and economic operation of the power system.

The variable component of the CPM is a hybrid of the fixed and the ex-post components. It is linked to a margin but it is fixed ex-ante based on a forecast of the margin. It was created to resolve a tension between the size of the fixed and ex-post components of the CPM. Generators argue that more should be fixed as this is the intention of the CPM i.e. to provide a stable revenue stream whereas the SOs will argue that more should be in the ex-post payment as the intention of the CPM is provide capacity when capacity is needed. It is obvious that both arguments are valid as both are objectives of the CPM and in an effort to resolve this tension, the variable component was created.

EirGrid believes the variable component, rather than marrying the above objectives, proverbially falls between the stools and delivers neither stability nor availability when the system needs it most. The reason for this is that the variable payments are weighted on a forecast of the margin. As highlighted in the annual FPF reports, it is not possible to forecast to any reasonable degree of accuracy the margin at a Trading Period resolution for the month ahead. This is mainly due to three uncertain components: demand, conventional generator availability and wind availability. Demand patterns are well understood and this can be forecasted to a reasonable degree of accuracy; however, demand is temperature dependent and this is difficult to forecast month ahead. While individual conventional generator availability is difficult to forecast, aggregate conventional generator availability is more stable. It is the final component, wind that introduces significant uncertainty into the forecast of the margin. It is possible that on any day in the month being forecasted that the wind could be <10% of installed capacity or >90% of installed capacity or somewhere in between. As our installed capacity approaches 2000MW, this is the extent of the inherent error in the forecast. As such, the forecast margin and the actual margin is rarely the same. This has serious implications as currently 40% of Capacity Payments are variable.

EirGrid believes that the variable component of the CPM undermines the signal for availability in the ex-post and also adds significant complexity to the mechanism. Therefore, it is our view that the dual objectives of the SEM could be better met with a combination of fixed and ex-post payments and that the variable component is not required.

Based on this rationale EirGrid recommend that the fixed capacity payment proportion be increased to 50% and the ex-post capacity payment proportion be increased to 50% effectively reducing the variable capacity payment proportion to 0%.

Flattening Power Factor (FPF)

Should a FPF be applied within the SEM? Should the current value be maintained or changed? If the mechanism moves to a heavier weighted ex-post payment will the FPF be as effective?

The rationale for the FPF is that while it is reasonable to place greater value on available capacity at times of tighter margin, it is not the intention to introduce excessive volatility into the mechanism as this would undermine the stability objective of the mechanism.

The FPF works by reducing the gradient of the annually calculated LOLP function used to weight the variable and ex-post payments. A FPF=1 results in a very steep LOLP function being used and therefore small differences in margin result in payment differences several orders of magnitude greater. The extreme result is that in the trading period of low margin relative to other margins in the same month receives almost all of the variable or ex-post payment weighting in that trading period. Any unit that is not available for this one trading period would not receive any appreciable capacity payment for that month. While this is the correct signal in terms of valuing availability when needed most, it is excessively volatile and would undermine the stability of the mechanism. It would also have significant implications for generators that have little or no control over their availability, including wind generators.

The current value of 0.35 was recommended by the SOs in the annual FPF reports in context of the FPF applying to both the variable and ex-post payments; however, it is our view that it is too low and overly dampens the LOLP signal. A low value was chosen to ensure that significant amounts of the variable payment are not placed in too few Trading Periods as the actual margin may bear little resemblance to the forecast margin; however, if the variable component is reduced to 0% as set out in our response then the SOs would recommend that the FPF is increased to 0.5 to place greater emphasis on times of tighter margin in the ex-post payment.

Ancillary Services

The CPM and the AS revenue payment streams have two separate objectives and it is the RAs view that these should remain separate. Should the CPM offer payments for flexibility?

Response: Please see main response.

CPD (Capacity Penalty Declaration)

Do respondents agree with the SEM Committee, that an appropriate mechanism for penalising generators for not providing capacity when they have declared that they would, would increase the incentive to encourage the availability of generators when actually needed?

Do respondents believe that the CPD arrangement as described would fit the SEM CPM design?

What should an appeals process involve / include?

How should the proceeds from penalties be distributed?

Response: Mechanisms that would improve reliability and security of supply are welcome. However; any penalty would need to be suitably integrated and aligned in it's objectives with any other incentive or other system charges.

New Entrants

Should new entrants be treated differently to incumbents in the CPM?

Response: All units should be treated equally

SOCAP – System Operator Capacity Allocation Programme

Regarding the decisions the SOs make in the allocation of provisional monthly pots, should these decisions instead of being non-binding, be partially or wholly binding? For example if €50m is assigned to January for provisional settlement in February; should that €50m 'stick' even partially, at the end of the Trading year when the LOLP of all the months is known?

Regarding the annual 'wash up'; should the settlement instead be continually washed up each month? In this way, previous CPM payments made in the year will be subject to continuous amendment each month instead of a final adjustment being made at year end. Is this better in a financially practical sense?

Is monthly resolution the most appropriate setting? Should the SOs deliver the forecast and provisional allocation on a weekly basis instead? Should the provisional settlement be done weekly instead of monthly?

EirGrid Response: While EirGrid appreciates the intentions of the RAs in regard their SOCAP model, we would not be in favour of such a model and believe that much of the benefits of such a model could be more efficiently realised using a combination of the fixed and ex-post payments with a higher value for the FPF.