



Response to SEM-11-088
CPM Medium Term Review Draft Decision Paper

on behalf of
AES Ballylumford Ltd and AES Kilroot Power Ltd

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Queries to

Lesley Hogg
Strategic & Regulatory Affairs Director
Kilroot Power Station
Larne Road
Carrickfergus
Co. Antrim BT38 7LX
Tel: 028 93 356213 E-mail: lesley.hogg@aes.com

Introduction

AES Ballylumford Limited and AES Kilroot Power Limited (collectively “AES”) welcome the opportunity to respond to the Single Electricity Market Committee’s (“SEMC’s”) CPM Medium Term Review Draft Decision Paper (“the Draft Decision Paper”).

Summary

AES welcomes the SEMC’s acceptance that in view of the significant changes to the landscape since the start of the Capacity Payment Mechanism (“CPM”) review, substantive changes should not be made to the CPM at this time. Furthermore, AES believes that no further changes should be made to the current CPM methodology at this time because of the significant uncertainty facing investors as a result of both domestic and European energy policy, economic conditions and the market changes that will be required to comply with EU regional integration.

Despite the extent of the uncertainty facing investors in the Single Electricity Market (“SEM”) the SEMC has decided that it wishes to make “minor changes” to certain aspects of the CPM calculation. AES is alarmed and very concerned in relation to the so called “minor changes” outlined by the SEMC, with particular emphasis on the change to the Infra Marginal Rent (“IMR”) calculation methodology. The “minor change” to the IMR methodology proposed by the SEMC will reduce the Annual Capacity Payment Sum (“Capacity Pot”) in the region of €50m or 9% per annum through a revised IMR mechanism that is fundamentally flawed. AES considers this to be extremely significant and the fact that the SEMC does not is quite disconcerting.

The SEMC’s justification for amending the IMR methodology is to reduce its theoretical volatility by applying a theoretical calculation, which by the SEMC’s own definition is flawed and conflicts with previously stated methodology. It should be noted that the SEMC has chosen to amend the IMR methodology which, as far as AES is aware, has not been raised as a concern by any of the SEM participants. Furthermore, the SEMC has once again chosen to ignore the very real and persistent concerns raised by a large number of participants regarding the WACC calculation. As these decisions significantly lower and suppress the value of the Capacity Pot it appears to AES that the SEMC is artificially and arbitrarily directing the value of the Capacity Pot instead of letting an agreed, transparent process derive an appropriate capacity rate. In addition, these decisions, which will materially lower the value of the Capacity Pot, are being made at a time when the Capacity Pot should have reflected additional costs due to SEMC approved changes to the TUoS methodology. We should also point out that it appears as if SEMC consciously chose not to reflect the increased TUoS costs which would be incurred by the BNE and increased the value of the Capacity Pot for 2012.

AES believes that the SEMC decision to change the IMR methodology and the lack of a decision to review WACC will send out both negative economic signals to new investors and highlight the risk of regulatory interference in the SEM. The SEMC is effectively sending out a signal to say that the SEM doesn’t need new investment at a time when new conventional generation is required to support challenging renewables targets and replace plant which will be required to close under the Large Combustion Plant Directive and Industrial Emissions Directive. NI in particular is further negatively impacted by recent SEMC decisions on TUoS and TLAFS, and the UK Government decision to introduce a Carbon Price Support tax.

AES welcomes the SEMC’s intention to increase the targeted FOP from 4.23% to 5.91% but still considers the rate to be significantly lower than the historic forced outage rate even allowing for a targeted rate (which AES disagrees with).

AES is not supportive of the option to fix the Best New Entrant (“BNE”) peaking plant cost components for a number of years to introduce stability and predictability into the BNE cost. Our preference is for a five-year rolling average which reflects actual costs. AES’ primary concern with the decision to fix the elements of the BNE calculation for 3 years and then index it, relates to the unrealistic WACC set by the SEMC.

AES does not consider there to be any merit in changing the value of the Flattening Power Factor (“FPF”) from 0.35 to 0.5 in order to increase the signal for the need for availability in times of low margin as in reality there is very little action that a generator can take. Generator outages are planned around manufacturing guidelines and warranties and statutory insurance inspections and as such are difficult to alter.

Detailed comments on the SEMC Draft Decision Paper are set out below.

Infra Marginal Rent

AES welcomes the SEMC’s acceptance that in view of the significant changes to the landscape since the start of the CPM review, substantive changes should not be to the CPM at this time. The SEMC has however decided to make a €50m (9%) “minor change” to the IMR calculation methodology.

The SEMC is proposing to change the IMR calculation methodology from an estimate of the actual IMR that the BNE peaking plant would earn as derived from the validated SEM Plexos model to the following theoretical calculation:

$$\text{IMR deducted in €/kW} = [\text{PCAP-BID}]/1000 * \text{Outage time} * (1-\text{FOP})$$

Where:

PCAP is the maximum System Marginal Price that can be set in any Trading Period

BID is the bid price of the BNE peaking plant

Outage time is the 8 hours Loss of Load Expectation (LOLE) generation security planning standard

FOP is the Forced Outage Probability of the BNE peaking plant

In the Draft Decision Paper the SEMC calculated that the change in the IMR methodology for 2011 (used for illustrative purposes) would increase the IMR for the BNE peaking plant from €0/kW to €7.05/kW with a corresponding reduction in the net cost of the BNE peaking plant from €78.73/kW to €71.68/kW. This results in a 8.95% or €48.8m reduction in the capacity pot for 2011. AES considers this to be a very material change in the capacity pot size and is unsure how the SEMC considers this to be a minor change.

On the basis that the SEMC has determined that the Market Price Cap (“PCAP”) and the technology for the BNE peaking plant will remain unchanged for 2012, the IMR will similarly remain unchanged at €7.05/kW. This would translate into a 9.24% reduction in the net cost of the BNE peaking plant for 2012 from €76.34/kW to €69.29/kW and a €48.8m reduction in the capacity pot for 2012 (again used for illustrative purposes).

Since none of the variables in the IMR calculation are likely to change for 2013 it is therefore reasonable to expect the capacity pot for 2013 to be reduced by around 9% or €50m as a result of the change in the IMR methodology. AES is therefore very concerned at the scale of the

impact and confused by the conflicting messages given by the SEMC. On the one hand the SEMC agrees that no significant changes to the SEM should be made as investors are already facing significant uncertainty, but on the other suggests a €50m per annum change to the Capacity Pot.

In SEM-10-046 the SEMC stated that:

(p21) "A key priority for the BNE is the level of risk associated to the remuneration of his investment. A volatile IMR...will result in the generators receiving an unstable and unpredictable income every year" and that the objective in amending the IMR methodology is (p25) "to remove this level of volatility if possible".

It is commendable that the SEMC wishes to remove some of the volatility in the CPM calculations, however as far as AES is aware none of the participants in the SEM have raised the IMR calculation methodology as a concern. There has been very little volatility in the IMR since it has been zero other than in 2007.

Furthermore AES does not consider that the retention of the current IMR methodology will result in any volatility in the medium term. By its proposals the SEMC is therefore making a change to a theoretical, non-existent problem which ironically will introduce much greater risk and regulatory uncertainty into the SEM. It is also worth noting that as summarised in the Draft Decision Paper, none of the respondents preferred the chosen change in IMR methodology (Option 2). Given that there is a non-existent problem and that the chosen change was not the preference of any of the respondents to the IMR consultation AES can only assume that the SEMC has chosen to change the IMR methodology in order to purposely lower the value of the Capacity Pot.

IMR Methodology

Notwithstanding AES' view that the SEMC appears to be intent on fixing a non-existent problem and attempting to selectively lower the value of the Capacity Pot, AES believes the IMR calculation methodology to be flawed.

In the Draft Decision Paper the SEMC states (p18) that

"...a key point in the selected design of the CPM within the broader theory of remunerating generators is to consider the circumstance in which the market is at equilibrium. At equilibrium, the peaker will set the marginal price (whenever it is scheduled) as it has the highest variable costs. Also within this system there must be some hours with non-served energy and a marginal price equal to VOLL [Value of Lost Load], since otherwise the system cannot be in equilibrium..."

Since the SEM has a PCAP (currently €1,000/MWh) which is less than VOLL (currently €10,519.75/MWh) by the SEMC's own definition the SEM cannot be in equilibrium.

In SEM-07-187 p7 the SEMC also stated:

"...in the underlying theory of the CPM it is assumed that the market is in equilibrium and therefore the RAs are interested in establishing the infra marginal rent resulting from the current competitive system state and not an artificial scenario..."

Furthermore as far as AES is aware there have been no periods of non-served energy. While it may be a reasonable argument to say that the periods of non-served energy may not necessarily be observed in the short-term but rather over the longer-term (which one must assume is the BNE plant life of 20 years), this argument is also flawed. This is because the SEM will be unable to remain in its current form in the long term due to the changes that will be required by 2016 in order to comply with EU Regional Integration.

Reality v Theory

While the RAs set the Generation Security Standard at 8 hours Loss of Load Expectation (“LOLE”) on an all-island basis, at a practical level generation adequacy needs to be determined at separate NI and ROI levels due to the transmission constraints between NI and ROI.

While the SEMC may consider that lowering the Capacity Pot to be in the interests of electricity consumers this is a very short-term view. The recent All-island Generation Capacity Statement 2012-2021 (GCS) jointly published by Eirgrid and SONI in December 2012 states (p11):

“Generation Adequacy in Ireland is positive in all scenarios across all years. The only scenario where the surplus dips close to 200MW is with the removal of older plant. However, as the assessment should be on an all-island basis by then, there should not be an adequacy issue were this scenario to arise.”

However for NI it states:

“Without the introduction of an additional tie-line to Ireland, and following the decommissioning of older plant in Northern Ireland, by 2016 surpluses in Northern Ireland are reduced to circa 100-200MW even with increasing levels of renewable generation capacity. The analysis has considered other more onerous scenarios for the loss of a large CCGT in Northern Ireland and the loss of the Moyle Interconnector with Great Britain. Both of these scenarios resulted in a deficit position for Northern Ireland.”

The GCS also shows that while the total dispatchable capacity on the island increases marginally over the 10 year period, it returns to 2012 levels of circa 9,300 MW by 2021. It should be noted that these figures assume flows totalling 890 MW through the Moyle and East West interconnectors.

It is also worth noting that no new conventional generation is currently planned to be built in NI over the next 10 years which is a very real manifestation of the risks and uncertainties facing investors in the SEM.

NI and the ROI need new generation assets to ensure long-term security of supply and therefore while the artificial lowering of the CPM may bring cost benefits to electricity consumers in the short-term, it is likely to have serious long-term security of supply issues as investors no longer see the SEM as attractive.

On a practical basis politicians and electricity consumers are unlikely to accept 8 hours LOLE and therefore the use of an unrealistic planning standard in the SEMC’s proposed IMR methodology is also likely to contribute to longer term security of supply issues.

Weighted Average Cost of Capital

AES considers it ironic that the SEMC appears to be intent on amending the IMR methodology to address a non-existent problem (which reduces the value of the Capacity Pot), but at the same time consistently ignores very real investor concerns regarding the artificially low Weighted Average Cost of Capital (“WACC”) which the SEMC continues to set.

Since the start of SEM, AES and the majority of generators have repeatedly raised concerns regarding the SEMC’s unrealistic determination of the WACC and the fact that it does not reflect the cost of capital that the average investor would incur. AES is concerned that the continued use of the UK WACC as the range for the BNE WACC does not reflect the reality of an investor contemplating an investment in the SEM. The UK WACC does not reflect the risk of the geographical separation of NI from mainland GB, the SEM, the fact that energy policy is devolved to the NI Assembly and the unique circumstances of investing in a market that operates across two separate legal jurisdictions. This is further compounded by the fact that, since NI makes up only about 25% of the SEM total electricity requirement, the ROI is by far the dominant influence and an investor contemplating an investment in NI will place significant weight on the economy and political stability of the ROI.

Since the risk of investing in the SEM has increased significantly over recent months due to, for example, the deterioration of the financial stability of the ROI; aggressive renewables targets in both NI and ROI; SEMC reviews of the CPM and Scheduling and Dispatch; EU legislation and UK Electricity Market Reform, the SEMC’s assessment of a reduced WACC for 2012 seriously undermines the credibility of the CPM and the associated risk and uncertainty for investors. It is therefore essential that the WACC is recalculated using realistic assumptions.

It therefore appears to AES that any time the Capacity Pot is due to increase as a result of genuine market signals and changes in underlying data the SEMC simply intervenes and changes either a methodology or assumption to counteract it. There is absolutely no point in having a transparent methodology with the aim of increasing investor confidence in the SEM if the SEMC simply changes the methodology every time the Capacity Pot looks as if it will increase.

Forced Outage Probability

AES welcomes the SEMC’s intention to increase the targeted FOP from 4.23% to 5.91% which it states is based on an analysis of historic SEM forced outage rate. While AES welcomes the increase, AES still considers the rate to be significantly lower than the historic forced outage rate even allowing for a targeted rate (which AES disagrees with).

As can be seen from the 5-year FOP average on p12 of the Draft Decision Paper, the 5-year FOP average in 2010 appeared to be around 9%. As the SEMC has not published the basis of either the original 4.23% rate or the revised rate the calculation is not transparent. It is therefore unclear whether or not the SEMC has changed the mechanism for calculating the FOP. AES therefore requests the SEMC to establish a transparent FOP mechanism based on the historical SEM FOP which can be consistently applied and therefore predicted by investors.

BNE Constant for 3 Years

AES was not supportive of Option 5 (calculate the BNE and fix the components for a number of

years) but had a preference for Option 3 (calculate the BNE annually and then apply smoothing) as it considered a five-year rolling average of the BNE to be the most appropriate method of introducing both stability and predictability while at the same time reflecting actual costs, albeit with a slight time lag.

Regarding the SEMC's decision to fix all elements of the BNE calculation for 3 years by simply indexing 2014 and 2015 using 2013 as the base year would suggest that the SEMC intends to calculate the WACC for 2013 and that it will be indexed for 2014 and 2015 as part of the overall BNE cost. If this is the case AES again highlights its concerns with the artificially low WACC set by the SEMC noted in the WACC section above.

Timing and Distribution of Capacity Payments

The Draft Decision Paper sets out the SEMC's intention to increase the FPF from 0.35 to 0.5 in order to increase the signal for the need for availability in times of low margin but without introducing excessive volatility and unpredictability into it.

While AES understands the SEMC's desire to increase the short-term capacity shortage signal AES remains of the view that in reality it will make very little difference to generators. Generators always wish to be available however they will have periods of unavailability due to planned and forced outages. By definition, forced outages are unplanned and therefore outside of the generator's control. Even with planned outages generators have limited ability to alter these due to compliance with manufacturing guidelines and warranties, statutory insurance inspections and the requirement to notify outages to the TSO at regular prescribed intervals. Thus there is generally a long lead time when scheduling outages and limited opportunity to alter them. Therefore even if the FPF did highlight periods of low margin there is very little action that a generator can take other than perhaps rescheduling a non-urgent, short-term, ad-hoc outage.

Outages must also be considered in the context of a generator's obligations under its Generation Licence and Grid Code to act as a Prudent Operator and the obligation to make capacity available to the TSO if the generating unit is technically available for dispatch.

For these reasons AES does not consider there to be any merit in changing the value of the FPF. Furthermore increasing volatility of capacity payments through an increase in the PFP is inconsistent with the SEMC's decision to amend the IMR methodology in order to reduce the level of volatility.

Conclusion

AES is disappointed and extremely concerned with the SEMC decision to change the IMR methodology and the fact that there has been no review of the WACC calculation. Given the significance of the SEMC's decision on IMR and AES' concerns regarding its methodology AES would welcome a meeting with the SEMC to discuss this further.