Energy for generations

Generation & Wholesale Markets

ESB GWM Response:

Integrated Single Electricity Market

(I-SEM)

Balancing Market Principles Code of Practice Consultation Paper (SEM-17-026)

Non-Confidential Version

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Contents

EXECUTIVE SUMMARY

The I-SEM design and implementation is at a critical juncture. While much of the design work is now complete, the setting of detailed parameters could ultimately have a significant impact on whether I-SEM will deliver for consumers both today and in the future. ESB GWM has reiterated this elsewhere but we are concerned that decisions being taken on the CRM parameters and on bidding controls will act as a barrier to the proper functioning of the market.

The SEM Committee has made what ESB GWM believes to be an arbitrary decision that new incremental investment can be included in CRM offers but investments made before I-SEM cannot be included. This decision, combined with a very strict set of bidding controls on three part offers will, in all likelihood remove any confidence existing plants have to recover investment costs leading to early market exit. This in turn will require the consumer to prematurely fund new entrants through ten year contracts where the consumer would have been better off having funded existing plants until the end of their economic life.

ESB GWM remains steadfast of the view that the bidding controls applied to three part offers will impact right across the energy market. This will occur through the TSOs' scheduling software which will optimise the system based on three part offers rather than simple offers until 30 minutes before real-time. This will also occur as a result of NIV Tagging and SEM Committee imposed settlement rules which result in dampened prices and NIV tagged actions, which are not actually subject to any operational constraint being settled based on three part offers. ESB GWM has put forward this market wide impact proposition in a number of consultation responses and we do not believe it has been adequately considered and addressed.

Following publication of the Decision Paper on Bidding Controls, ESB GWM has significant concerns with the approach being taken by the SEM Committee. ESB GWM wasn't alone in voicing concerns with the SEM Committee proposals and almost all respondents made similar views known. We do not believe that views were sufficiently considered and addressed by the SEM Committee and do not believe that the underlying rationale and reasoning for the decision is sufficiently robust to give generators confidence in the regime moving into I-SEM.

The SEM Committee has decided that three part offers in I-SEM should not make any provision for risk including any provision for foregone revenues. The decision was justified on the basis that (i) I-SEM is a completely different to SEM, (ii) there is no provision in Ireland or Northern Ireland for provision of short term maximisation and (iii) there exists a global insurance market to cover off such risks. ESB GWM does not accept any of the SEM Committee's reasons and has articulated in our response how I-SEM is similar to SEM, how there exists a short term maximisation provision in Grid Codes and that a leading insurance broker specialising in power has told us that no relevant insurance product exists.

ESB GWM is strongly of the view that risk provision is an important input to generator offers and not to include it is economically inefficient. If appropriate risk adders are not included in offers, the TSO is not presented with the true opportunity costs of cycling plants and will operate the system in a less than efficient way. Increased cycling results in increased maintenance costs and higher forced outage probabilities. The response sets out the case for unintended consequences of the SEM Committee's decision in terms of total costs and threats to security of supply.

ESB GWM remains of the view that where a bidding control restriction is required, the licence and bidding code relationship should remain as it is in SEM. The SEM Committee decision has not sufficiently addressed submitted comments or sought to understand the concerns of licensees. This response sets out further rationale as to why we believe the SEM Committee has taken the wrong decision and why confidence in the regulatory framework is greatly threatened for existing and potential new players. We understand that the next time to address this issue will be at the statutory licence consultation time but believe it useful to set out outstanding concerns in this response. ESB GWM has an outstanding request for the SEM Committee to bring clarity to the situation where plants have not secured a CRM contract and seek confirmation that bidding controls will not apply to such plant.

Regarding the BMPCOP document itself, ESB GWM suggests that its name be changed. The use of the word principles is confusing given the TSOs will call their BM process document the Balancing Market Principles Statement (BMPS). In addition, given the absence of any real principles in the document and the rules based approach being adopted it could be argued that it is disingenuous to use the word principles in the title. The current BCOP actually contains a set of principles in Paragraph 4 and these principles have been removed by the SEM Committee in the BMPCOP. As a minimum, the general principle of generator cost recovery under the right competitive environments should be included in the document.

ESB GWM has provided comment on some of the prescription required within the BMPCOP. For example, the requirement to provide at least three bilateral offers is unworkable, the requirement to notify the regulator every time changes are made to fuel price methodology is disproportionate and serves no purpose in addressing market power. Also, the use of the good cause clause is now limited to eligible costs which could cause difficulty for generators in the future.

ESB GWM believes that the recent SEM Committee decision on gas transmission exit capacity is discriminatory against Northern Ireland. In future CRM auctions, Ireland generators will always be at an advantage over Northern Ireland ones on the basis that they can recover gas transmission capacity costs through the energy market with a potentially lower resultant CRM bid. It is suggested that generators holding exit capacity should be allowed to recover the cost of this through I-SEM offers.

Finally, on the treatment of penalties, we are disappointed that the SEM Committee took the decision not to consult on their treatment but rather went straight to decision. If the SEM Committee is intending that costs such as GPIs or gas overrun should not be included in offers, sufficient consideration has not been given to the matter. For example, generators, even new ones, cannot avoid trips and therefore there is an element of certainty with GPIs as they are unavoidable and they become more akin to a tax on generation. Given this, the SEM Committee should give further consideration to its decision on treatment of penalties and should look at this in conjunction with the Other System Charges (OSC) consultation.

This SEM Committee decision on penalties raises general concerns with the SEM Committee's future approach to deciding what can be included in offers but there are also concerns with this decision. Generators are being faced with the proposition of the SEM Committee making decisions which licensees believe are not appropriately reasoned or understood and leaving them with judicial review proceedings as the only recourse currently available after having identified that judicial reviews are cumbersome and time consuming.

1. INTRODUCTION

ESB GWM welcomes the opportunity to respond to this Consultation. The I-SEM detailed design is at a critical juncture and it is important that the decisions being taken across the various workstreams fit together to deliver an internally consistent market design.

ESB GWM has a number of significant concerns with the recent SEM Committee decision on Offers in the I-SEM Balancing Market. These concerns relate to the decisions made by the SEM Committee in some cases but also to the manner in which the SEM Committee considered responses and rationalised its decisions. The response does not go into detail on these points other than to the extent that they relate to issues under consideration in this Consultation Paper.

2. TREATMENT OF RISK

2.1 SEM Committee Decision

The draft Balancing Market Principle Code of Practice (BMPCOP) contains a prohibition on the inclusion of any provision for risk (and resultant foregone revenues) in generators' three part offers (and potentially simple offers) to the balancing market. This follows on from the SEM Committee Decision on 7th April.

ESB GWM has significant concerns with the decision on risk provision and is strongly of the view that the decision will have significant negative impacts across the market and will ultimately be to the detriment of consumers. For example, without the ability to signal their true costs, generators will see increased cycling by the TSO, leading to reduced plant reliability and higher prices. Existing plant may exit prematurely, leaving consumers to fund replacement new plant. The issue of plant cycling arose in 2008 and the SEM Committee gave significant consideration to the matter at that time. In 2008, the SEM Committee rightly accepted that the existence of increased risks to plant and equipment as a result of the operation of a generator. The SEM Committee also decided that the additional equipment costs, the increased risk of failure to plant and equipment as a result of the plant's running regime and the concomitant loss of revenue from capacity payments and infra-marginal rents from SMP are allowable costs. The issues that were live in 2008 still exist today and the recent SEM Committee decision will raise the issue again.

In the following sections we set out where we feel the SEM Committee has not given sufficient consideration to the ESB GWM response.

2.1.1 Basis for the decision

The SEM Committee decision on risk provision in SEM-17-020 appears to be grounded on three key foundations. ESB GWM found no other rationale put forward in the decision other than these:

1. I-SEM is fundamentally different to SEM

2. There is no provision in SEM or I-SEM for short term output maximisation

3. There is a global insurance market in place to cover the risks under consideration.

ESB GWM has given further consideration to the SEM Committee's decision and in particular the rationale offered for the decision. We have reviewed each of the reasons below:

2.1.1.1 I-SEM is fundamentally different to SEM

The SEM Committee has stated throughout the Decision Paper that the I-SEM will be a fundamentally different market to SEM and that this justifies the changes proposed, including the reversal of previous SEM Committee decisions. ESB GWM is of the view that the underlying economic objective of the market remains the same. Namely the TSOs' scheduling systems, are built on the same principles as the SEM (cost minimisation in dispatch) and that the two markets are not fundamentally different in this regard.

The two markets are different in terms of the unconstrained element where generators get an MSQ through the MSP software today and will do so through SEMOpx in the future. However, the underlying dispatch and divergence from the unconstrained schedule will employ largely the same methodology and will be driven by the same system and network constraints as today.

Below we have outlined how there is little difference in the operation of the market algorithms or incentives underpinning the new I-SEM:

> Firstly, for generators that are out of merit, the I-SEM energy market is no different to the SEM. They will be scheduled and paid for based on the TSOs' scheduling software. They will be paid the greater of their offer and the imbalance price. This in itself is not particularly meaningful given that out of merit generators will largely be more expensive than the balancing market price. This will be exacerbated given the level of dampening that the SEM Committee is instituting in the imbalance price (no start cost adder, NIV tagging, potentially high PAR, etc.) thus dampening the signals for locational investments and system operations. Further to this, out of merit doesn't necessarily mean a rarely called very expensive generator required for very specific reasons but also captures plant that are called for DS3 or other system support requirements. Given the unconstrained SEM/I-SEM designs, generators are continually called for reserve provision and to address longstanding unresolved system constraints. Therefore to say that I-SEM is a completely different market to SEM in the way that the SEM Committee has stated is simply not the case when the foundations based on the fundamental drivers of dispatch and reward are considered.
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> Secondly, the TSOs' scheduling systems have a significant impact on in merit generators. As far as ESB GWM can glean from the overall design, the TSOs' scheduling software will seek to optimise the total system dispatch based on PNs, three part offers, simple incs and decs etc. While the original I-SEM HLD and the recent BMPS refer to this as minimising deviations from PNs, it's not clear from the BMPS that this is how the systems will work. While the distinction (between minimising deviations and minimising costs) might not be significant in general, the impact of this is magnified because of decisions the SEM Committee is taking on three part offers.

The SEM Committee decisions to date have given the impression that generators in merit have significant control over their asset (e.g. choosing how to run overnight) but the way in which the TSOs use three part offers renders this assertion unsafe. The recent BMPS consultation (Section 4.1) has made clear that the TSOs will use complex offers to optimise the system up to 30 minutes before real-time and Figure 9 of the BMPS suggests that the Real Time Commitment (RTC) run will both sync and desync units, leading to a shift away from stated detailed design decision of using simple offers after gate closure. Given this, the TSO will look at the BMPCOP'd offers and start costs and could ultimately decide to take a plant off the bars for a period at night even where the unit's simple decs had expressed a preference not to do this.

This greatly heightens the significance of the bidding controls on three part offers and in a way which was not referenced in the SEM Committee's decision.

In its Decision Paper, the SEM Committee asserts that the BMPCOP provisions will largely only impact generators in constrained areas. However, the SEM Committee has failed to present any evidence or analysis that this will be the case. The TSC decision to settle NIV Tagged balancing actions using complex offers means that any generators could be adversely affected by the BMPCOP, including flexible peakers and units repositioned to provide system services. ESB GWM believes that this explicitly supports our assertion, which appears to have been discounted by the SEM Committee, that the controls being applied to three part offers have impacts right across the DAM, IDM and BM. We would welcome clarification on this point from the SEM Committee.

2.1.1.2 No provision in SEM or I-SEM for short term output maximisation

The SEM Committee justified the preclusion of risk adders on the basis that SEM or I-SEM doesn't have provision for short term output maximisation and that any such provision might be a reason for inclusion in other markets. By implication, the SEM Committee recognises the role of risk adders in the case of output maximisation, which is to be welcomed. Nevertheless, ESB GWM is of the view that the SEM Committee's rationale is wrong. Firstly, risk provision should be permitted outside of the narrow case of short term output maximisation, and secondly, short term output maximisation is indeed relevant to I-SEM.

The Grid Codes[1] in Ireland and Northern Ireland do have, since their inception, a provision for short term output maximisation. Moreover, there are multiple references to Short Term Maximisation Capability in the I-SEM TSC Appendices (e.g. MXON, MXOF, PMXN, and PMXF instructions in Appendix O) published by the SEM Committee on 12 April 2017.

This oversight potentially raises a more general point about the level of analysis carried out by the SEM Committee in making the decision or indeed the understanding of the detail of specific issues under consideration. This feeds into a broader concern that the SEM Committee has not given adequate consideration to the points put forward in responses.

2.1.1.3 Global Insurance Market

A key rationale in the SEM Committee's decision on risk was that there exists a global insurance market for generators to insure themselves against increased risks from operating in a certain manner. The SEM Committee has put forward this assertion with great certainty and has expressed the existence of such a global insurance market as fact rather than possibility.

ESB GWM cannot marry the assertion from the SEM Committee with the realities of the insurance markets we operate in. There is undoubtedly an insurance market to insure power stations. However, these operate on a basis not dissimilar to home insurance. Insurance can be taken out on the power station and the policies will assume that the generator is carrying out operations in the way it was intended to do (and within OEM guidelines) and that it's managed by a reasonable and prudent operator. Such policies tend to have a 45 day excess for business interruption whereby costs for the first 45 days are carried at the plant owner's cost. It is not generally possible to reduce this 45 days even if offering to pay an additional premium. As almost all forced or unplanned outages are resolved well within 45 days, they are essentially uninsurable, only the most catastrophic would exceed the excess.

However, the SEM Committee has stated as fact that there exists a global insurance market where increased risks from operating a plant can be insured against. Such a market doesn't exist from what ESB GWM has seen. In particular, we shared the SEM Committee decision and rationale with a London based insurance broker who specialises in the power industry. They have expressed the view to us that there is no specific product available akin to what the SEM Committee has suggested and that the offers available are in line with the general insurance policy mentioned above. Increased outages from increased cycling outside of what a plant was intended to do are not readily insurable. This is not dissimilar to reports of houses in areas that flood frequently not being able to obtain insurance.

[1] In the EirGrid Grid Code, Short-Term Maximisation Capability is defined as The capability of a Generating Unit to deliver, for a limited duration of time, MW Output greater than its Registered Capacity.

Given the above, it is ESB GWM's strong assertion that the SEM Committee has based its decision on a misunderstanding of the global insurance market and a misunderstanding of the insurance products available. We ask that the risk adder is re-established as a normal cost that is seen in global energy markets where they are not omitted through regulatory direction.

2.1.1.4 Summary of SEM Committee's decision rationale.

Based on the above, it is ESB GWM's view that the SEM Committee's stated rationale for making its decision on risk provision is flawed and does not support the decision that has been made.

Elsewhere in the decision, the SEM Committee states that it is not constrained by prior precedent in making its decision. ESB GWM understands this view and has stated this in our previous response. We did however, state that in moving away from current positions, the SEM Committee should give full consideration to the issue at play in making any new decisions and provide effective evidence when justifying such a change from its own past decisions. To this end, we stated that the SEM Committee has significant information available to it to carry out an ex-post assessment of outcomes from SEM with regard to risk provisions and to allow this to feed into the decision. While the SEM Committee made reference to the raising of this point, it did not respond to it in the decision. Nor, would it appear, has the SEM Committee carried out any analysis of the form proposed.

The response below discusses this further but ESB GWM believes that the SEM Committee is overly focussed on the existence of excess capacity on the system and its interpretation of the need to protect consumers. ESB GWM believes that in taking the position it has, the SEM Committee is failing to protect tomorrow's consumers by driving costs well below competitive levels for today's customers leading to unsustainable outcomes and expensive remedies in the future. The costs associated with not following a path of least regret when assessing what plants should remain on the system, by being overly prescriptive about what costs can be included in bids, could itself lead to out of market contracts having to be awarded..

2.2 Impact of risk decision

ESB GWM is of the view that the SEM Committee decision on risk will have significant impacts across the whole I-SEM and in a more expansive manner than the SEM Committee envisages. If the SEM Committee forces generators to remove risk provision from their three part offers, a number things are likely to occur;

1. The TSO will not see the true cost of cycling a unit
2. Generators will cycle more and be less reliable
3. Cost recovery for cycling could occur in a less than economically efficient manner
4. The economic lifetime of existing plant could be reduced below optimum levels.
5. Plants that have an expectation of increased starts from TSO actions will carry a higher risk under the reliability option design in the CRM and this could lead to unforeseen interaction between the markets.

In SEM, risk provision has been used by generators to internalise the external cost of plant cycling in their offering to the TSOs. This has resulted in the TSOs seeing the actual cost of cycling plants rather than seeing the short term accounting type costs. This has delivered an efficient dispatch and has delivered consumers the optimum use of resources available and so giving the optimum cost solution. This is also consistent with the regulators' decision on the treatment of carbon in the SEM back in 2007. Carbon too, was an externality with questions raised by the regulators about how to treat it in offers. At that the time the decision was taken that requiring its inclusion in *offers takes account of the need to ensure that the correct* *economic signals apply in the wholesale market (for investment and for energy efficiency)*[2]. Similar arguments apply for the external costs of risk of operating a generator in certain ways.

SEM outcomes have been endorsed by the SEM Committee through its positive pronouncements in annual reports, etc. The situation in SEM was brought about following the analysis carried out by the SEM Committee in 2008 where it deemed that risk provision is best made in start costs.

The remainder of this section sets out the impacts of the SEM Committee decision on risk provision on the market. We refer to the whole market here and not just the subset of generators assumed by the SEM Committee in their decision.

2.2.1 Costs of Generator Cycling

ESB GWM is strongly of the view that operating a generator in certain ways poses a risk and resultant cost for generators. The SEM Committee has recognised this issue previously in the development of the BCOP and the MMU published an information paper on plant cycling in 2010. There are multiple bottom up and top down reviews of the costs of cycling large coal and CCGT units, carried out by industry bodies, government bodies tasked with ensuring the reliability of electricity supply and by academia. All these reviews identify the link to increased maintenance cost and increased unreliability from higher cycling duty.

ESB GWM believes that the SEM Committee decision on risk amounts to the removal of the true opportunity cost of plant risk from generator offers with knock on consequences. These consequences manifest themselves mainly through increased unreliability and increased maintenance costs and increased forced outage rates. We have discussed these further below.

Investment in modifications that facilitate cycling is possible but will likely be limited to modern plants that foresee a significant return from increased flexibility and price volatility. No plant would take on such modifications, which in general are very expensive, without clear foresight of the value in doing so and the ability to forecast the cycling duly. Since for most plants, the potential cycling will not be through its own action, rather it will be the use of the unit by the TSO, it is not possible to project with good accuracy the usage. ESB GWM has experienced this uncertainty through the frequent changes to the TSOs' constraint rules. The proposed three part offers limit the value in any plant modifications to cost recovery at best for plants most affected. This does not support any such investment cases.

2.2.1.1 Increased Maintenance Costs

If generators are required by the SEM Committee to offer power to the TSO below the opportunity cost of producing that power, the TSO is likely to cycle the plants more. In particular, because the externality of cycling is not priced in, the TSO is more likely to take plants off at night or to turn them off for a time during the day.

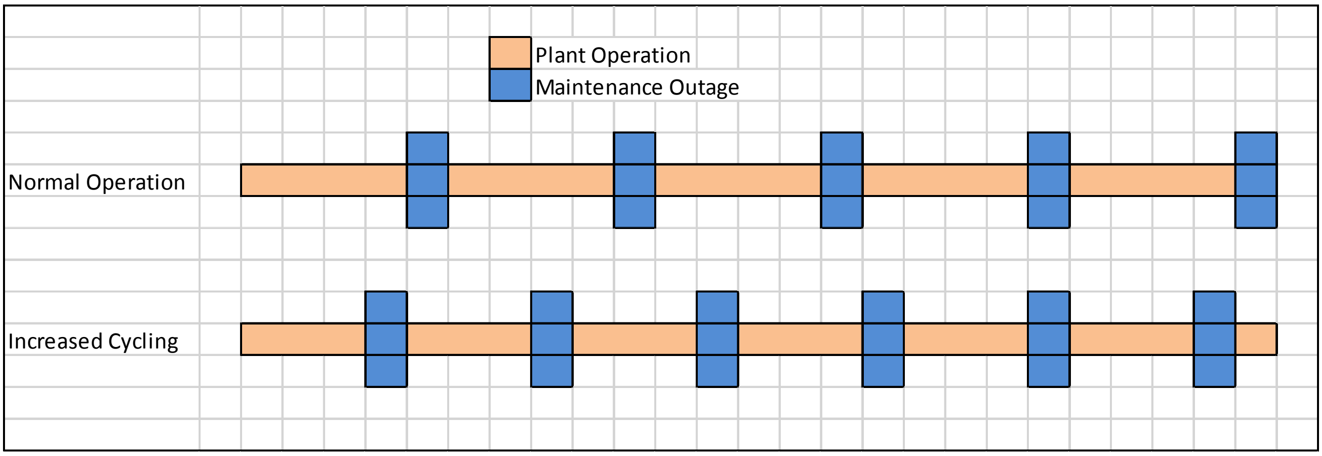
The SEM Committee has stated that this can be priced into investment cases or can be insured against by existing plants. New investments being planned now may be better able to forecast the operating regime for plants compared to plants that were designed ten years ago but it is a less economically efficient solution than presenting the TSO the true cost of cycling in real time. The SEM Committee's logic would require a new generator to lock in an assumption about the number of starts they will incur over the life cycle of the plant and would have to factor in a higher forced outage probability (FOP) than is typical for the plant due to cycling. If less cycling occurs the generator retains a rent while if more starts occur the generator's business case is challenged. The SEM Committee has placed great weight in its decisions on achieving a market consistent with theoretical economic outcomes but the position on risk seems entirely at odds with this.

When putting together a business case or asset management programme, generators make assumptions on running regimes and numbers of starts. A VOM offer inclusion is calculated based on this and is included in offers with the allocation between starts and PQ pairs based on expected types of operation. The risk adder

[2] Treatment of Carbon in the SEM (AIP-SEM-07-117)

in that VOM today means that additional cycling costs are recovered where cycling occurs and no costs are recovered where no cycling occurs. This is a very important point to note – if cycling does not occur, then no related costs are recovered nor are they incurred.

In the future without the adder for the opportunity cost of risk, the generators would need to make assumptions on running regimes of higher cycling, and less energy over which to recover VOM. This is illustrated below.



Generators would also need a higher capacity payment or expectation of energy price to allow for the increased hours where the plant will be on forced and planned outage.

Across the lifetime of the plant in the increased cycling regime above, the VOM adder would be much higher given that it would need to cover additional outages across the life of the plant and it would have less running hours or MWhs across which to recover it. The difference in cost between the two regimes above is difficult to quantify but it is clear that generators are forced to operate their plants in a less than optimal manner by virtue of prohibition of opportunity cost recovery.

Again, it should be reiterated that, given the TSOs will optimise the system based on three part offers until 30 minutes before real time, this will impact on all plants in I-SEM and not just plants that are out of merit or located in constrained areas. This move away from minimising a change from the participant's PN by an algorithm will have consequences right across the market.

In essence, the removing of the opportunity cost of risk from generator offers requires less flexible plants to operate as peakers. This is discussed further below in the impact assessment section.

2.2.1.2 Decreased Reliability

ESB GWM believes that the removal of risk adders in offers will increase cycling above optimum levels because the TSO won't be presented with the true opportunity cost of cycling the plant in question. Increased cycling of plants is expected to decrease a unit's reliability and availability. The impact of cycling on forced outages from an ESB confidential peer review is set out in the tables below for referenced coal plants and CCGTs. Please note that this is confidential information and should not be published or shared. For this reason, ESB GWM has requested this response be kept confidential.

The remainder of this section has been redacted for confidentiality reasons.

2.2.2 Wider Market Impacts

Reduced plant reliability has impacts on system security in that generators are less likely to be available at times when they are needed most. The impact of this may not be acute now given the current margins.

The SEM Committee is aiming to deliver an 8 hour loss of load system and has signalled that they expect significant plant closure. High forced outage probability on an eight hour design standard system would significantly impact security of supply through either increasing the capacity requirement (given that FOP is an input to the capacity requirement) or deliver more than the planned eight hours loss of load. The latter is more likely unless higher FOP rates are inputted to the capacity requirement from the outset.

If a generator has fewer hours to earn IMR (because of increased FOP) or is less likely to be available during a scarcity event its offer may need to be higher in the CRM than it otherwise would be. ESB GWM believes this is less economically efficient than showing the TSO the opportunity cost of cycling the plant in the BM.

Under the proposed BMPCOP, a generator may face higher costs through increased TSO cycling with limited recourse for cost recovery either in the BM or competitive energy and capacity markets. Over time, there will be an increased likelihood of existing capacity exiting prematurely and consumers having to fund new plant with guaranteed long term contracts in the CRM.

Reduced reliability also has an impact on electricity prices because higher outage rates on plants will result in more occasions where alternative more expensive plants will be required. For example, where a marginal CCGT trips more often there will be an increased requirement for a higher merit and more expensive unit to replace it. While this may not of itself cause a scarcity event it will increase outturn prices.

Finally on this point, an increased cycling probability and consequential higher FOP will impact on the forwards market. The SEM Committee has rejected ESB GWM's assertion that their controls will impact across the market but we are strongly of the view that they will. A generator's confidence in offering forward liquidity will be greatly diminished if it is known that units will be forced to cycle more and that this will increase FOP. This can't but have a negative impact on forward liquidity.

As stated above, ESB GWM believes that the SEM Committee's decision on risk is wrong and will have adverse impacts that have not been considered. It will cause excessive cycling of plants which will increase risk adders in investment cases or forward contracts.

In the short term, the decision could impact security of supply. Power stations have a significant lead time in terms of development. In general it is likely that any large scale power station development will take more than six years from initial inception to commissioning. While the CRM auction will seek capacity four years ahead of delivery, significant work is required before any auction and it's likely that any project that accepts a contract will need to be fully consented and ready to commencement construction. If the existing plants were to be excessively cycled they may not be available or reliable in subsequent years. There is no business case in the short term for some new build given the levels of risks to appropriate cost recovery inherent in the new market design. There is also no business case to complete major outages to keep existing plants going. Therefore, Ireland and Northern Ireland could be faced with existing plants being excessively cycled and having to close and there being no time for new investment to come forward. When this is coupled with an anticipated significant demand increase from data centres, the security of supply situation could easily become threatened. The SEM Committee may argue this to be a tenuous link between risk provision and threatening security of supply but ESB GWM believes that the issue is significant.

In both Ireland and Northern Ireland, the link between Foreign Direct Investment (FDI) and a secure electricity system has been identified. In 2014, the Sustainable Energy Authority of Ireland stated that "In their decisions to locate operations, international firms are increasingly emphasising a desire for access to secure, clean energy"[3]. More recently the CBI Northern Ireland, in evidence presented to the Northern Ireland Affairs Committee in the House of Commons suggested that "uncertainty around Northern Ireland's electricity supply deficit had weakened the Province's ability to attract foreign direct investment"[4]. Given this, the SEM

[3] Ireland's Sustainable Energy Supply Chain Opportunity (2014) Sustainable Energy Authority of Ireland (SEAI) in partnership with the IDA and Enterprise Ireland.

[4] Electricity Sector in Northern Ireland (2017) Northern Ireland Affairs Committee - House of Commons -Third Report of Session 2016–17

Committee should be seeking to avoid situations where plants are being worn our prematurely rather than forcing the situation on generators.

2.3 High Level Impact Assessment

Given the length of the consultation period it has been difficult to put together a full impact assessment of the SEM Committee decision. In our response to the earlier bidding controls consultation (SEM-16-059), ESB GWM urged the SEM Committee to carry out this assessment given the vast data it has at its disposal but it has failed to do so in putting forward its decision. This suggests to us the SEM Committee does not have an appreciation of the impact of the decision it has made.

ESB GWM has carried out some high level modelling of SEM using the current Plexos model. In particular we isolated non-fuel costs (inclusive of risk adders) from start costs and carried out an unconstrained modelling run with VOM costs halved. Given the unconstrained nature of the run and the different market timeframes in I-SEM, it is difficult to precisely identify impacts of the lower VOM costs

The modelling results suggest a significant redistribution of starts among units. In general, units that currently cycle frequently in the market cycle much less and plants that cycle less now would cycle more. For CCGTs we observed a circa threefold increase in starts for heavily in merit CCGTs and a circa three fold reduction in starts for units that currently cycle frequently. The results for peakers were more extreme with some peakers seeing a 10-15 fold reduction in starts.

The results are not conclusive given the complexity of the market engine but they do suggest a significant redistribution of starts from plants that are willing to and are built to cycle, to plants that unwilling to or to whom cycling costs more. This is a very real world impact on actual dispatch caused by this SEM Committee decision and no reference was made to this in the SEM Committee's articulation of its decision. We strongly urge the SEM Committee to give further consideration to this matter.

2.4 Evidence from SEM

In the I-SEM High Level Design Decision (SEM-14-085a) the SEM Committee gave an explicit commitment to make evidence based decisions. This was a welcomed statement. As the detailed design has progressed there have been areas where decisions were made based on more qualitative analysis owing to a lack of available data or modelling.

In the case of bidding in I-SEM and the decisions being taken by the SEM Committee there is no basis for making such decisions without looking at out-turn data from SEM. It was very clearly pointed out to the SEM Committee in response to the recent consultation that the SEM Committee probably has more data and information available to it than any other regulator in the world.

As stated in the ESB GWM response, generators make an assessment of risk in offers based on information available at the time. The SEM Committee has on numerous occasions sought detail on the build-up of those costs. The SEM Committee also has regulated accounts for generators and summary financial data submissions which we understand are used for comparison purposes. The SEM Committee can easily look back at out-turn outcomes.

It is ESB GWM's contention that out-turn outcomes do not suggest that excessive adders have been included. The inclusion of risk adders have reduced cycling on certain plants by sending a cost reflective cost to the TSO. Where plants have been required to cycle, there have been increased costs and the adders are needed to cover this. Where plants have not been cycled no risk adder was passed to the TSO.

The recently published SEM Committee report on generator profitability does not suggest excessive profits at gas plants (the main plants affected by this decision). We strongly urge the SEM Committee to revisit the out-turn data from SEM.

2.5 Conclusion on Risk

In conclusion on risk, ESB GWM is strongly of the view that the SEM Committee should give further consideration to its decision on risk.

- Operating plants in certain ways does have a cost and that cost manifests itself through increased unreliability and FOP and increased maintenance costs

- This cost is best reflected in generators' offers in the energy market to give the right signals to the TSO and to give the right investment signals for flexible generation and demand side response.

- The SEM Committee decision on risk may not ultimately reduce energy costs to consumers but will increase total maintenance costs across the industry which will ultimately feed through to consumers.

- The decision could have unintended consequences in the short term where increased cycling could wear plants out prematurely and new entry may not be possible before the significant demand increase at the start of the next decade.

3. BMPCOP COMMENTS

This section of the response sets out ESB GWM's position on the draft BMPCOP. These comments are made without prejudice to our general concerns on the recent SEM Committee decision on Complex Offers in the I-SEM BM and in particular the decision to remove key rights for licensees to a subsidiary document.

ESB GWM requested clarity in our response to the previous bidding consultation on the arrangements for plant that has failed to secure a contract in the CRM. This comment was not addressed and the question remains outstanding for ESB GWM. We request that the SEM Committee bring clarity to this matter in this decision and the upcoming licence consultation.

3.1 Licence BMPCOP Relationship

As set out in the ESB GWM response to the Offers in the BM consultation, we are concerned by the SEM Committee's proposal to remove a key substantive provision from the licence to the subsidiary document BMPCOP.

Currently, the Licence to Generate makes clear the overriding principle which governs the BCOP. It is clear what the BCOP is setting out to achieve and the clarity in the licence condition provides a level of comfort to the regulator and the regulated entity. The SEM Committee's proposal to remove the substantive principle from the licence creates significant uncertainty for licensees. The importance of the licence to a generator cannot be overstated. As pointed out by Justice Clarke in the High Court Judgement of 2011, the legal rights and obligations of all parties are crystallised when the regulator issues licences in the form in which it does. Moreover, Justice Clarke explicitly considered the nature of the licence and the proper approach to its interpretation. His conclusion on this point suggests that a licence should be interpreted in the same way as a negotiated contract and that at least in general terms, the same principle applies to the grant by a statutory body of a licence as apply to a negotiated contract. Therefore, from ESB GWM's point of view, the licence to generate must be considered as a contract. However, the terms and conditions as proposed by the SEM Committee are not appropriate contract terms given their open ended nature and lack of any clear rights for ESB GWM.

The SEM Committee decision on bidding in the BM stated that it is necessary to move obligations from the licence to create a dynamic BMPCOP document that gives clarity to industry. Paragraph 4.3.3 of the decision states that in future any doubts as to meanings or applications of the BMPCOP can be definitively resolved to reflect particular circumstances.

This perhaps goes to the heart of why the core principle or principles underlying bidding controls, if required in I-SEM, should be enshrined in the licence in the first instance. As stated in our previous consultation response, no other licence condition goes to the heart of a generator's ability to run its business like the bidding condition does. Generators deserve certainty on this issue as the generation licence is in essence the regulatory contract. Any confusion that might arise in the future should be dealt with when it arises through the proper amendment procedures. As outlined further below, there are very specific procedures provided for in the legislation to modify licences and for affected parties to appeal licence changes, specifically because these are the conditions on which licensees must conduct their business.

The SEM Committee has stated that the Irish High Court did not suggest that there was a "substantive demarcation" between those matters which ought to properly be contained on the face of the licence and those which may permissibly be delegated to a derivative document such as the BMPCOP. The SEM Committee also specifically references provision in Northern Ireland legislation which contemplates that licence conditions may validly refer to provisions which are set out in other documents. We do not dispute that it is appropriate for licences to cross refer, for example, to compliance with other industry documents such as grid codes, or the trading and settlement code, where it would not be feasible or practicable to replicate the provisions within the licence itself. Further, we do not dispute that it may be appropriate, in certain circumstances, to set out the level of detail below the licence condition in a derivative document such as a BMPCOP. However, we cannot accept that there is no delineation between the type of issue that should be set out within the licence itself, and what may validly be incorporated by reference. If one were to follow the SEM Committee's line of argument to its natural conclusion, then a regulator could entirely bypass the procedures for licence modifications and appeals by simply cross referring to other documentation throughout the licence with the licence itself becoming merely a shell document.

We have a serious concern that the proposed approach bypasses the express wishes of the legislature on this issue and the decision calls into question the future usefulness of licences. The legislature created the concept of licences as a means of engagement between the regulator and the licensee. We do not believe that it was the intention of the legislature in either jurisdiction to see a licence bypassed in such a way by the regulators. Otherwise it begs the question as to why they created a provision for a licence in the first place.

The High Court did not need to address this point in the carbon levy case, because it simply did not arise. At that time, the relevant principle was set out in the licence and it was clear that the Court heavily relied on this as the overarching principle against which the BCOP must be interpreted. Removing this interpretative guidance from the licence means that the substantive content of the licence condition is now relegated to a document which is not subject to the same level of rigour in terms of the potential for challenge and review.

The SEM Committee has stated that generators' rights of appeal are not affected by their decision because any licence changes will still need to go through the relevant change process. This misses the point made by ESB GWM however; any change to bidding requirements that could negatively impact on generators' ability to operate in the market should be subject to the appeals mechanism that the legislature put in place. Otherwise, it is difficult to see what the purpose of that licence amendment mechanism was in the first place. The suggestion is that there is a single opportunity to challenge the removal of the substantive issue from the licence, and thereafter it falls outside of the licence modification process.

The SEM Committee appears to have contradicted itself in relation to the use of court proceedings in relation to bidding in I-SEM. In Paragraph 4.3.5, the SEM Committee states that licence modifications and court proceedings are expensive and time consuming and therefore their proposed approach is best. However, in paragraphs 4.3.6 to 4.3.8, the SEM Committee suggests that judicial review is the appropriate solution for generators wishing to appeal a decision. This is apparently intended to provide comfort that any changes to the BMPCOP would be subject to challenge by licensees. This is greatly concerning and fails to recognise the significance of judicial reviews. A judicial review is a very significant judicial process and is a remedy in administrative law, intended to ensure that public or statutory bodies act in accordance with their vires and the laws of natural justice. It is not appropriate to hold up judicial review as the means of challenging the substantive content of a decision on a complex market issue. In any event, in the absence of an overriding principle in the licence, it is very difficult to see what measure a court could apply in determining whether or not the SEM Committee had acted reasonably.

Supporting ESB GWM's position, it is instructive to consider the carbon revenue levy case in the High Court in Ireland in 2011 and in particular the Judgement of Justice Clarke. It would appear from Justice Clarke's judgement that the CER in its submission suggested that a regulator had to be afforded appropriate deference by the courts in interpreting a licence on certain complex matters. While at that time, the argument was not accepted by the court, it is clear that the CER (in the case of the carbon revenue levy) was of the view that the court should defer to the regulator on complex matters related to the market. If the CER or the Utility Regulator was to successfully make this argument in future proceedings it would render the judicial review process on very specific bidding issues an uncertain remedy for generators.

The SEM Committee must be aware that any decision to JR a regulator is not taken lightly. There is also the fact that a challenging party may have difficulty in securing injunctive relief to prevent any proposed modification taking effect, meaning that generators, in particular smaller players, could suffer significant adverse consequences prior to a case for judicial review ever being heard. Therefore, unless the appellant generator has significant resources they could be put out of business by the decision (and the regulators close to infinite resources) during their very expensive appeal. It is difficult to see the SEM Committee's position on JR as being in any way fair to licensees.

This is all by way of contrast to the procedure established in statute for challenging a licence modification, which is referred to an expert panel which has both the expertise and the jurisdiction to review the decision, is subject to tight timelines, and which has the express effect of staying the effect of the proposed licence modification.

The recent decision on bidding in the BM is a very real example of why ESB GWM is concerned with the SEM Committee's approach. In the Decision Paper, the SEM Committee made a decision on the treatment of penalties. It is unfortunate that the SEM Committee chose not to consult on this item with the wider bidding consultation but instead decided to go straight to decision without any consultation with industry. The rationale for this position was not made clear, but this heightens a more general concern that ESB GWM has regarding the relationship between the licence and the proposed BMPCOP relationship. This leads us to the belief that it is entirely conceivable that the SEM Committee could take a decision in the future not to consult on a proposed change to BMPCOP in the future, meaning the only recourse currently available to any generator unhappy with the decision would be to take judicial review proceedings.

Finally, our concerns on this point are further heightened and compounded by the layout and content of the BMPCOP. The current BCOP contains a paragraph which sets out the purpose of the BCOP. In particular Paragraph 4 states:

This Code aims to facilitate the efficient operation of the Single Electricity Market by ensuring that:

- *in combination with the Capacity Payment Mechanism established under the Single Electricity Market Trading and Settlement Code, generators are appropriately compensated for making available their generation sets or units (as appropriate) and for generating electricity in the Single Electricity Market;*
- *generators cannot exercise market power in the generation of electricity on the island of Ireland or any part thereof; and*
- *the Power Procurement Business cannot exercise market power by virtue of generation sets or units contracted to it under long term power purchases agreements in Northern Ireland, in respect of which it has been appointed an Intermediary.*

This has been removed in the proposed BMPCOP which effectively means that there are no stated principles applying to the document. This effectively gives the SEM Committee a free rein in amending the document without regard to any overarching policy aim or purpose. The fact that any such change would be subject to a consultation process provides very little comfort from a legal perspective. Indeed, the SEM Committee's decision on this matter appears to ignore the overwhelming response from generators on this issue. Ultimately, regardless of any consultation process, the SEM Committee would have the decision making power, and this would only be subject to challenge by means of judicial review which, as outlined above, is a difficult process, unsuited to this type of substantive review.

3.1.1 Proposed BMPCOP Changes

ESB GWM remains of the view that the SEM Committee decision on the licence BCOP relationship is wrong and we will make further submissions to this effect in the upcoming licence changes consultation. Regardless of the ultimate decision made on the licence BMPCOP relationship, ESB GWM is of the view that the preamble/principles from the current BCOP should be set out in the BMPCOP. In particular they should set out the principles of the market and set out the generator's right to recover costs when required to run by the TSO or in the market.

3.2 Total Costs versus Eligible Costs

A principle of any electricity market should be that generators have a right to recover their total costs of generation where they **are required** by the market and the competitive environment allows. The SEM Committee has decided to change the definition of total costs to a potential subset of costs that they will opine upon from time to time.

The move from total costs to prescribed eligible costs goes to the heart of the issue that ESB GWM (and other generator licensees too it would seem from responses) are concerned about. The SEM Committee's proposals appear to be built on the ability to limit what a generator can recover from the market based on the SEM Committee's own assessment of replicating a perfectly competitive outcome (which in itself requires perfect knowledge and foresight). In the current market, supported by legislation in both jurisdictions, generators have a right (not a guarantee) to recover their total costs of operating in the market when called upon to do so. This was a key issue in previous judicial review proceedings on bidding in SEM.

When generators sought to invest in Ireland and Northern Ireland they had a legitimate expectation of total cost recovery where market or system conditions allowed. Generators understand that where they are not required by the market or the TSO there is no specific right to cost recovery. ESB GWM is concerned that this fundamental point has been misunderstood or misrepresented by the SEM Committee where it has been interpreted as all generators connected to the system demanding full cost recovered whether or not they are required by the market or TSO.

However, the SEM Committee is now seeking to change this underlying fundamental position. ESB GWM believes this change will have wide reaching ramifications which might not be immediately apparent and can be costly for the consumer in the long run.

If the SEM Committee wishes to become involved in opining upon each eligible cost for generators, it makes operating in the market more risky since any cost can be precluded at the stroke of a pen (as was nearly done in the case with VOM).

For existing generators, participation in the market becomes more onerous as continual dialogue on which cost is and isn't eligible is time consuming and also takes away the element of speed when to remain competitive and bid accordingly in a market environment. Where a SEM Committee decision precludes costs generators know to be real (such as risk), the generators' continued presence in the market is threatened.

For new generators, the regulatory framework is much more risky on the basis that they are not investing in a true competitive market seen in other jurisdictions. Those new generators need to make assumptions about the impact of the BMPCOP'd three part offers on their revenue streams and recover all shortfalls in the CRM. This is something which is difficult to forecast in a competitive market with many players that interacts across many European markets too. This would see a significant portion of market revenues recovered through individual 10 year CRM contracts and a much more benign energy market with less signals for flexibility etc. This could also deter investors as there would be so much uncertainty for the latter end of the plants technical life when it moves out of merit.

If the SEM Committee wishes to continue with Eligible Costs it must provide certainty to licensees. The concept of Eligible Costs must be accompanied with an explicit right (not a guarantee) of generators to recover costs of operating in the market. To do otherwise creates significant problems with the overall regulatory framework in the future as discussed above and undermines the dynamic operation of a healthy market with effective signals.

On the classification of eligible costs themselves, in PJM, where a generator proposes a cost for inclusion, they must receive a position from the market operator within a number of days. Similar processes would be required in I-SEM. In addition, a provision should be made, like in PJM which allows a mark-up for frequently mitigated units[5] where it is understood that constantly constraining on a plant has additional costs.

3.3 Levels of Prescription

In responding to the consultation on bidding controls, ESB GWM expressed concerns with the proposed move from a ‘principles’ to a ‘rules’ based approach, which marks a significant departure from the current BCOP regime. Our view remains that a prescriptive rules-based approach as set out in the draft BMPCOP is unlikely to be efficient, workable or acceptable.

3.3.1 Start Costs

As an example of the potential difficulties with this approach, consider the treatment of start-up and no load costs. We note that the proposed BMPCOP has two pages of drafting on eligible start-up and no load costs, in place of a single sentence in the current SEM BCOP. Regarding the cost of fuel required for start-up, paragraph 25(a) of the proposed BMPCOP states that this “should use the same calculation method as the incremental fuel costs outlined in paragraphs [16] to [18], including the same price index”. This prescriptive drafting fails to recognise that a number of generating units, including those at Moneypoint, use different fuels for start-up and incremental operation. Moreover, where multiple start fuels are used, the actual blend deployed will typically vary depending on the conditions at the time.

The proposed drafting reflects a lack of assessment and evidence-based decision-making by the SEM Committee, as highlighted above with regard to risk adders.

3.3.2 Fuel Price Index

Paragraph 18 of the BMPCOP requires generators to inform the regulators if it changes its fuel cost calculation (which the paragraph states includes the fuel price index). It is unclear what issue the SEM Committee is seeking to address with this wording but the insertion creates a significant burden for generators and the RAs. Moving from a general ex-ante requirement on offers to a constant reporting model creates the potential for a generator to be in breach of the BMPCOP and potentially its licence, not because its offers were not in line with the requirements but that no notification was made to the RAs when changing part of the fuel price build up. The cause could be as simple as an index not being published on a given day and having to use another. It is neither reasonable or proportionate for such an event to technically be a breach of licence. Again, the logic behind this change has not been communicated but ESB GWM suggests that the requirement is overly prescriptive and should be removed.

3.3.3 Three Bilateral Offers

As stated in the previous bidding response, ESB GWM is of the view that the level of prescription in the valuation of opportunity cost in paragraph 32 b is unworkable. 32 b requires a generator to provide three bilateral offers for a cost item to the RAs. For costs such as VOM this isn’t possible as generators would generally have little choice as to who to work with and so three offers just wouldn’t be possible. Other costs that could come into this category could be peat or biomass or the specificities of DSU offers. ESB GWM suggests that this clause should be removed.

3.3.4 Good Cause Clause

The proposed BMPCOP retains the concept of a good cause clause in paragraph 32. However, the way the clause interacts with the licensees’ bids and offers is changed. In the current licence and BCOP, the concept of Total Costs exists and therefore any good cause evaluation could encompass any cost. The move to Eligible Costs changes this. The good cause clause now only applies to eligible costs and there would be

[5] ESB GWM raised this in our previous consultation response also but no reference was made to the point in the response and decision paper.

no provision for a generator to make a case to the regulator to include a cost that is not within the meaning of eligible costs and defined ex-ante by the RAs in a changing environment. If the concept of Eligible Cost were to be retained, ESB GWM suggests that the concept of a good cause clause should be widened to include any cost and not just one which sits within Eligible Costs. This would deliver a principle more in line with today's BCOP and could reduce confusion in the future.

3.4 Treatment of Gas Transmission Capacity

The recent SEM Committee decision has signalled that there will be no change to the situation regarding gas transmission capacity inclusion in generator offers. In the previous consultation the SEM Committee had signalled that annual strips of capacity would be allowable in offers as it would facilitate equitable treatment of generators in Ireland and Northern Ireland. ESB GWM saw this as a sensible approach for Northern Ireland generators and indeed all generators on the island on the basis that making arbitrary interventions on what can and can't be bid will distort the economic equilibrium and will result in generators having to make sub-optimal decisions based on external regulatory interventions.

The SEM Committee's ultimate decision on fixed gas capacity is extremely disappointing. The SEM Committee, in Section 9.4 of the Decision Paper, provided no insight into why it moved from its position in the draft decision and the decision results in all the existing issues with gas capacity bidding remaining. ESB GWM had hoped that the decision would deal with the matter, having been informed by the Utility Regulator in 2016 that this was the most appropriate avenue to address the matter.

While the decision has an impact on generators operating in Northern Ireland at present, perhaps the biggest loser from the SEM Committee decision is the Northern Ireland consumer. In Ireland, generators will rightly be able to purchase daily gas products where they are not in merit. On the other hand, Northern Ireland generators will only be able to recover exit capacity costs through the CRM. This will always make Northern Ireland generators less competitive in the CRM auction compared to plant in Ireland by virtue of an administrative decision by the SEM Committee.

The recent report of the Northern Ireland Affairs of the House of Commons expressed concerns about security of supply in Northern Ireland, as have recurring TSO capacity statements. This SEM Committee decision appears to make the situation worse rather than better for Northern Ireland and will make power station development more attractive in Ireland than Northern Ireland. ESB GWM suggests that the gas transmission capacity decision be revised to allow generators recover the cost of gas exit capacity costs in offers to I-SEM.

3.5 Treatment of Penalties

In section 8.3.11 of the decision, the SEM Committee has stated that it would not be appropriate to allow the inclusion of penalties as an eligible cost in complex bid offer data. It is unclear what is meant here by "penalties". As the SEM Committee will be aware, there are only limited circumstances in which financial penalties may be imposed under the Electricity Regulation Act 1999 as amended, i.e. for "improper conduct" as defined within the meaning of the Act, as amended. Such sanctions may only be imposed following the procedures set out in the 1999 Act (as inserted by the Energy Act 2016).

If that the term penalties is intended to encompass costs such as Generator Performance Incentives (GPIs) then further consideration is required. Taking GPIs as an example; generators incur a trip charge and a short notice declaration when they come off load quickly. These GPIs were introduced in the current ex-post market where no explicit balance responsibility exists (although any forward contracts sold constitute balance responsibility). In I-SEM, generators will incur imbalance payments where they trip as well as the GPIs. This is a significant overloading of charges on generators and does not exist in other markets as far as we can see.

Further to this, no generator has a zero forced outage probability, even very new units. Therefore, units will trip a number of times a year. The GPI is therefore more akin to a tax than an incentive. In addition, increased cycling, caused by the prohibition of risk adders will increase forced outage probability and increase the GPI charges. Given that generators cannot control these costs it is entirely reasonable for them to make provision for them in BM offers. Similarly with gas transmission capacity costs, there is a window at night where generators cannot buy gas capacity, had not elected to run and are still called upon by the TSO. In such instances they would incur over-run charges. In this case they have not caused the over-run charges but rather the TSO has forced the generator into them. The generator may have been keeping the lights on in an area at the time but would be hit with significant charges. This exposure to penalties with no means to mitigate them again highlights the lack of co-ordinated design both within the rules and across the different markets under the auspices of the RAs.

As stated above, we are disappointed that the SEM Committee chose not to consult on this but to go straight to decision. ESB GWM believes that the issue needs further consideration , that the paper is not sufficiently clear as to what is meant by “penalties”, and that prudent provision for charges such as GPIs should not be prohibited from generator offers. This issue should be examined in conjunction with the ongoing consultation on Other System Charges.