

IWEA response to SEM Committee Consultation on the Capacity Remuneration Mechanism Detailed Design (SEM-15-044)

17 August 2015

1. Introduction

IWEA welcomes the opportunity to respond to this first consultation on the Capacity Remuneration Mechanism (CRM). The CRM has been a fundamental part of the market design on the island of Ireland to date and the move to the Reliability Option (RO) is a significant change which presents a serious challenge to the wind industry. With the increasing levels of wind generation in the market, it is important that wind generation can participate in all aspects of the market.

> Concerns with Form of CRM

In our submission to the I-SEM High Level Design Draft Decision, we highlighted the significant concerns that the wind industry has with the choice of CRM, the Reliability Option.

IWEA remains strongly opposed to the proposal to have a capacity remuneration mechanism based on reliability options (RO) and would urge the RAs to consider a less complex scheme that interferes less with energy market dynamics and the contracting market. It is readily apparent from the consultation, which commendably acknowledges the issues openly, that these complexities (e.g. choice of strike price, choice of market reference price etc.) combined with the 'Hole in the Hedge' issue associated with ROs are extremely challenging to resolve. The discussion of performance incentives and scarcity pricing adds to the complexity of the RO. This presents serious risk management problems but also implementation risks given the contracted timeline for implementation. IWEA would therefore suggest that the merits of moving forward with reliability options be given serious consideration at this stage. We note that reforms are ongoing in other markets with reliability options with fundamental changes being implemented to the ISO-NE scheme, including a proposal to eliminate the Peak Energy Rent (PER) adjustment (i.e. the payment back to the system in circumstances where the market prices exceed the defined strike price) in conjunction with the pay-for-performance reforms. A prudent approach should be taken as further reforms at a later date (for example to eliminate the CfD aspect of the scheme as ISO-NE is doing) may be difficult to implement given the strictures of State Aid approval that will apply to the scheme in I-SEM.

From a wind perspective reliability options are problematic because they create implicit penalties when market prices go high in the reference market. By definition, zero cost variable generation drives prices low when it is available (particularly when it comprises such a portion of market demand). Therefore, Contracts for Difference (CfD) penalties may occur during periods of high demand AND low wind. This means that wind may be punished most severely out of any technology class under the RO. Wind would have to account for this unfair penalty into its RO offer, likely

making it uncompetitive. Defining the penalties in this manner, i.e. implicitly saying that periods when wind contributes to a high demand requirement are not periods where there may be a requirement for security of supply, is clearly discriminatory. Wind has an established capacity credit as outlined in the Generation Capacity Statement and this capacity credit needs to be recognised.

> Making the RO work for Wind

The High Level Design decision has not taken the above concerns into account and a decision has been taken to proceed with Reliability Options. The focus of this response is to put forward proposals which aim to ensure that wind energy projects can participate in the provision of capacity and ensure that the capacity credit of wind is recognised.

We would reiterate that further information should be provided in relation to the objectives of the CRM and any limitations that may apply before any decision is reached. We note that one of the assessment criteria for I-SEM is "equity" and we believe that the reliability options are not equitable for wind generation.

In terms of IWEA's stance on the treatment of wind under the CRM, IWEA believes that a design principle of the CRM should be that wind generation receives fair payment for its capacity credit contribution to system security. Any other outcome would be discriminatory and would not comply with the new state aid guidelines. State Aid support for capacity mechanisms should be:

- technologically neutral and fit into the decarbonisation agenda; and
- transparent and provide for non-discriminatory allocation of costs;

Wind is a significant component of generation adequacy and will be into the future and the objective of the CRM is to ensure generation adequacy. It is also worth noting that wind's contribution to capacity is already recognised both in the current SEM CRM and annually by the TSOs in their Generation Capacity Statement. Furthermore, the design of the CRM should not promote interconnector imports relative to how neighbouring markets CRM's promote interconnector exports. While IWEA is cognisant of the desirability of cross-border participation in capacity markets where technically and economically feasible, the design of the CRM should be such that impacts on interconnector flows are minimised and imports on the interconnector are not rewarded at times of high wind, resulting in wind curtailment.

> Impacts if wind does not participate in RO

The SEM Committee should give consideration as to what will happen to CfD premium pricing if wind deems it impossible, or is effectively excluded for any reason, to participate in these auctions. If wind cannot in practice participate in the RO, then any theoretical contribution of wind should be excluded from that calculation. If the generation target is not adjusted for wind capacity credit, then more conventional generation than necessary will clear in the auction, **raising costs for consumers**. If the generation target is adjusted for wind capacity credit but wind is not paid as per the mechanism above, consumers will be getting available wind capacity credit for "free", <u>an</u> **inappropriate allocation of value from wind generators to consumers**. The SEM Committee should not attribute a theoretical allocation to wind if in practice it is unachievable. Such an approach

would raise questions of discriminatory design of the RO mechanism and would constitute overpayment.

IWEA also has concerns relating to the impact of the change in CRM on the Public Service Obligation (PSO) and Contracts for Difference (CfD) budgets in Ireland and Northern Ireland respectively. Any changes to the market revenues received by wind generators will have a follow impact on the REFIT calculations and hence the PSO. While the impact on the supported generator in this instance is minimal, the increase in the PSO leads to a perception of renewables being more expensive, and there is no certainty that the savings elsewhere in the market will be passed on to consumers. Any market change that creates an additional reliance on the PSO or supports is not desirable, as it will make it more difficult for wind energy projects to compete in the energy markets, while also influencing the consumer perception of the cost of renewables.

For NIRO supported generation, it should be noted that many projects invested on the basis of receiving capacity payments, and if supported generation was not to be eligible, this would have a significant impact on the investment case for these projects, resulting in greater exposure for NIRO supported generation. For the CfD due to be introduced in Northern Ireland, the eligibility for capacity payments will influence how projects are bid into the auction, and will have a direct influence on the strike price for renewables support.

2. Treatment of Wind Generation in the CRM

As outlined in the introduction, the wind industry has significant concerns with Reliability Options and the risks that this type of scheme presents generally and to wind generators in particular. The decision to proceed with reliability options should be re-considered. This section of our response outlines two options which we have developed to try to ensure that the capacity credit that wind provides can be properly recognised and rewarded in the context of a reliability option scheme.

2.1 Option 1: Wind energy assigned a value outside the RO mechanism

IWEA has previously put forward the option that wind generation (and indeed any variable renewable generation) could be treated outside the Reliability Option. The principle of operation is as follows:

- The System Operator determines the level of generation that will meet the Loss of Load Expectation (LoLE) standard.
- Wind capacity credit is taken away from this volume, e.g. 1000MW of wind may have a capacity credit of 200MW.
- The reliability option auction is run for the adjusted target, and a Contracts for Difference (CfD) premium price clears.
- Wind, exempted from RO CfD requirements, receives the CfD premium price x its capacity credit.
- Costs of the RO CfD premium are recovered from demand customers.
- Wind does not influence the price received, and therefore does not distort the appropriate pricing of "missing money".

2.2Option 2: Rules that will enable wind participation in the Reliability Option

We accept that participation in Reliability Options auctions is theoretically technology neutral as suggested by the SEM Committee, but we stress that the penalty structure is technology specific. If we look at wind that does attempt to participate in the reliability options as a fully obligated participant (in terms of CfD payments and explicit penalties) we see that wind will need to fund not only the cost of its capital but also will need to fund/insure against 100% of high price events under the CfD as a straight loss (as wind by definition is unlikely to be generating during those times) and explicit penalties. This will make wind appear much more expensive than its capital requirements; if a windfarm were to be successful the consumer would not be paying just "missing money", but also unavoidable penalties. This would be wholly inappropriate.

In light of this we have sought to find ways to reduce the risk to wind generation which may allow for participation in the capacity mechanism. An overview of how this option would work is provided below.

Aggregation

It is necessary that aggregation of wind generation will be facilitated for the CRM. We welcome the proposals in the paper in this regard to ensure that there is no unnecessary burden of participation on smaller participants.

Auction

We propose that wind would be included in the competition and may be capable of setting the price. Wind would be subject to difference payments (i.e. the difference between the Reference price and the strike price).

Participation Incentives

Variable renewable generation should not be exposed to additional penalties in the event they are not generating at the time of system stress, due to the nature of the resource. We believe that wind should not be subject to explicit penalties above the difference payments. The technical characteristics of wind are such that we believe it should be remunerated for its capacity credit, however it is unique enough that penalties would not be a fair balance of its capabilities. It is noted that in the ISO New England, New York ISO and PJM markets, penalties do not apply to intermittent renewables, and this should also be applied in I-SEM.

The objective of a participation incentive is to ensure that generators are made available at times of system stress. The nature of an incentive is that the participant can react to it. For wind generation, the presence of an incentive does not promote additional availability of an intermittent resource.

No loss clause - Under a no loss clause a participant cannot be required to pay back more in penalties than they are paid through the option fee over a given time period.

3. Response to Consultation Questions

The following section outlines the IWEA responses to the questions posed in the consultation paper. It should be noted that it is difficult to be definitive in response to some of the questions at this stage as there has not yet been a decision published in relation to the Energy Trading Arrangements, and there remains a significant amount of uncertainty. It is not appropriate to be consulting on the formation of the Imbalance Price (i.e. scarcity pricing) in the CRM consultation. Imbalance price formation should be dealt with under the ETA workstream.

3.1 Chapter 1: Introduction

Stakeholder Engagement

We note that the decision from this consultation is expected to be published in November without going to a proposed decision. IWEA would stress the importance of publishing a proposed decision so that there can be further opportunity for input at that stage, thus reducing the potential for unintended consequences.

We note that there will be a workshop on emerging thinking in September. We also suggest that additional meetings of the Rules Liaison Group (RLG) would be beneficial in the absence of a proposed decision to work through more complex aspects of the design such as the Market Reference Price, Strike Price, Incentives, Supplier Arrangements and Credit Cover. For both the stakeholder workshop and the RLG it would be more effective if some of the material could be published in advance.

Assessment Criteria

As outlined in the consultation paper the assessment criteria are based on the same principles as those outlined in the I-SEM High Level Design. While these criteria are appropriate for the market design we would have concerns in relation to their application to the capacity mechanism. In particular the objectives of the capacity mechanism are not clearly defined, e.g. is there a focus on long term generation adequacy or on short term pricing for customers. It is important that the correct long term signals are provided.

3.2 Chapter 2: Capacity Requirement

A) Feedback on our minded to position to retain the all-island security standard of 8 hours LoLE.

It is important to ensure that the LoLE used on the island of Ireland is compatible with European regulations and network codes and consideration should be given to any changes that may require further harmonisation of standards across Europe. It is noted in the paper that many other markets, including those with which we are interconnected have a 3hr standard. The argument for retaining 8 hours only addresses the costs without considering the benefits of security of supply.

The consequences of an 8 hour security standard should be fully considered in the context of moving to a quantity based capacity mechanism. Customers and industry on the island of Ireland have become accustomed to a high level of reliability under the current capacity mechanism. If the intention and effect of the new mechanism is to sharpen exit signals it is important that policy makers are prepared to accept the security standard chosen and put in place system operation protocols consistent with that standard which would mean, in extremis, load shedding in Ireland (which has an 8 hour standard) before Northern Ireland (which has a 4.9 hour standard) and exports to GB (which has a 3 hour standard) when load shedding is occurring on the island of Ireland (with its 8 hour standard).

B) Comments from respondents as to their preferred method of accounting for unreliability of capacity in determining the capacity requirement, along with reasons behind their preference.

IWEA supports the proposals within the paper that the de-rated requirement is used to account for plant unreliability. The capacity credit for wind should be its de-rated capacity credit. There needs to be full transparency and further consultation on how the de-ratings are set.

C) Feedback on the options presented in relation to accounting for demand forecast uncertainty, along with rationale behind any position.

IWEA is in favour of using the "worst case scenario" in accounting for demand forecast. The aim of the CRM is to protect against the worst case scenario which would result in a considerable cost to the economy. This would also provide more confidence for foreign direct investment (FDI). In the case of an optimal scenario, there is too much sensitivity and subjectivity in relation to the options that are assessed. In either case, further information would be required in relation to the scenarios to be used.

D) Feedback on our minded to position to base the capacity requirement for the CRM on a single capacity zone

IWEA supports the minded to position to base the capacity requirement for the CRM on a single capacity zone, as this is consistent with the market design. However we would use this opportunity to note the importance of the infrastructure required to ensure the efficient functioning of the market. The North South Interconnector is a crucial piece of infrastructure to ensure market efficiency. In light of this consideration should be given to having a facility for more than one zone in the event that there could be more than one pricing zone on the island or the required infrastructure is not in place.

E) Detail of any other considerations respondents felt that we should take account of when determining the capacity requirement for the CRM.

As outlined in our introduction, the SEM Committee should give consideration as to what will happen if wind deems it impossible, or is effectively excluded for any reason, to participate in these

auctions. If wind cannot in practice participate in the RO, then any theoretical contribution of wind should be excluded from the capacity requirement. If the generation target is not adjusted for wind capacity credit, then more conventional generation than necessary will clear in the auction, <u>raising costs for consumers</u>. If the generation target is adjusted for wind capacity credit but wind is not paid as per the mechanism above, consumers will be getting available wind capacity credit for "free", <u>an inappropriate allocation of value from wind generators to consumers</u>. The SEMC should not attribute a theoretical allocation to wind if in practice it is unachievable. Such an approach would raise questions of discriminatory design of the RO mechanism and would constitute overpayment.

3.3Chapter 3: Product Design

A) The approach to setting the Reliability Option Strike Price:

a. Should we adopt the "floating" Strike Price approach, which is indexed to the spot oil or gas price?

Our initial view is that it may be preferable to have a floating price. This will facilitate capacity providers to hedge as the reference price is likely to move in line with fuel price indexes. However further analysis may be required to determine the appropriate strike price in more detail.

b. How do we choose the reference unit? Should it be based on actual plant on the system or a hypothetical best new entrant (BNE) peaking unit as currently used for setting the Annual Capacity Payment Sum?

The strike price should be set at a conservatively high level and thus IWEA supports that a hypothetical reference unit be used rather than an actual plant, and the value used to set the strike price should include all marginal costs of generation (including start costs).

c. Should we grandfather this reference unit where a multi-year RO is sold by new capacity?

In order to ensure investor certainty for projects that can support the integration of increasing levels of renewables, we support grandfathering the reference unit in the case where a multi-year RO is sold. To do otherwise negates the benefit of a multi-year contract as the certainty of price is reduced and there is additional risk introduced. This would introduce considerable volatility in the market as the risk premium calculation for new entrants would be difficult to calculate.

B) The implementation of scarcity pricing in the I-SEM Balancing Market?

IWEA believes that the issue of scarcity pricing should be dealt with in the energy trading arrangements workstream.

C) The choice of market reference price options from amongst the options presented and consistency with key objectives.

In the absence of a decision on the energy trading arrangements (ETA) and with no clarity on how the balancing market will work, IWEA feels that it is difficult to give a definitive answer in relation to the reference price at this stage. The best outcome will depend on decisions around the eligibility of supported generation and the route to participation (e.g. Options 1 and 2 outlined above). The impact of the interaction of support schemes with the market design will also have a bearing on what the most appropriate option for wind generation is. It is essential that there is coordination with DCENR and DETI in this regard.

IWEA does not support the use of the Intraday Market as the reference prices as there is no single IDM price. There is also the possibility that X-Bid may not be completed until after I-SEM go-live. There does not appear to be an obvious way that this can be approached.

The blended option adds additional complexity which we are not in favour of. The blended option will only serve to allow capacity providers from avoiding the delivery signal, which is not supportive of the goal of the CRM which is to ensure reliability and deliverability into the market. There may be potential perverse incentives on market outcomes, as a hybrid option may change ratio traded in each market by a counterparty with every settlement period. Furthermore, it dampens the exit signal which in turn is likely to dampen the entry signal for new flexible generation which supports wind.

IWEA believes that in the absence of a decision on the ETA it is difficult to be any more definitive about the preferred reference price at this stage. This is something that would benefit from more analysis/discussion when there is a decision on the ETA.

D) Whether the RO volume and/or the additional performance incentives should be load-following.

IWEA strongly supports that the RO volume should be load following but the specifics of the load following obligation need to be carefully designed, ensuring that generators are not subject to risks that are unmanageable or that are beyond their control.

E) The requirement for, and design of additional performance incentives, including:

Variable renewable generation should not be exposed to additional penalties in the event they are not generating at the time of system stress, due to the nature of the resource. We believe that wind should not be subject to explicit penalties above the difference payments. The technical characteristics of wind are such that we believe it should be remunerated for its capacity credit, however it is unique enough that penalties would not be a fair balance of its capabilities. It is noted that in the ISO New England, New York ISO and PJM markets, penalties do not apply to intermittent renewables, and this should also be applied in I-SEM. It should be noted that in other (North American) markets it is possible for wind to participate because the risks are lower given low penetration of wind on the system. Thus exemption from penalties may be not be enough in a market with high levels of wind generation if it is still exposed to the CfD risk, unless the strike price is set sufficiently high that it is unlikely to be triggered. The de-rating of wind already significantly reduces the amount of wind that is eligible and sends a signal that wind capacity is not worth as much as other types of generation, therefore no additional penalty is required in this regard.

a. The form of additional incentives;

b. Scarcity based triggers for performance incentives

Scarcity based triggers for incentives need to be considered in the context of the reference market price. A scarcity event needs to be defined in conjunction with the BM Price formation.

c. Caps and floors on incentives;

Consideration should be given to the use of caps and floors to limit the risk exposure for renewable generators. Even in the absence of penalties for intermittent generation there is still considerable risk that wind will not be generating at the times of high prices and therefore may find it difficult to participate in the mechanism.

d. Performance incentives for renewables and DSUs;

e. Performance incentives during the pre-commissioning phase;

f. Detail of any other considerations respondents feel that we should take account of when determining policy in relation to product design

3.4 Chapter 4: Eligibility

A) The options presented in relation to the eligibility of plant supported through other mechanisms;

IWEA believes that **all** plant should be eligible to participate, regardless of whether it is already in receipt of support. This is consistent with the current approach in the SEM and provides a level playing field for all. We question whether the one-way CfD is a subsidy, and given there is an element of physical backing and it presents an inherent risk to all that participate, we do not view this as a subsidy. We note that one of the assessment criteria for I-SEM is "equity" and we believe that in order for the reliability option to be equitable it must be open to all plant.

We do not believe that there is any double subsidy associated with supported generation participating in the CRM. In the case of REFIT the revenues from the CRM are taken into account in the calculation of the support required from the PSO. If REFIT supported generation was unable to participate in the CRM, the result would be a significant increase to the PSO and it is unlikely that the consumer will see any benefit from this change. IWEA has concerns in relation to the impact this would have on the perception of the cost of wind energy.

For NIRO supported generation, it should be noted that many projects invested on the basis of receiving capacity payments, and if supported generation was not to be eligible, this would have a significant impact on the investment case for these projects. The impact of wind energy reducing the wholesale price of electricity, which is a significant benefit to the consumer, and the removal of LECs in the UK, should also be taken into account when considering the impact of the CRM on the investment case for these projects.

Further, if the SEM Committee were to exclude these generators from the CRM, their combined capacity credit would be netted off the contracted volume, indicating that they provide a capacity credit - this should be remunerated like all others. In particular with renewables becoming an

increasing part of the market, it is essential that the capacity mechanism is consistent with the change in generation portfolio.

B) The options for eligibility of demand side and storage providers

IWEA believes that all plant should be eligible to participate. In particular it is important for technologies which can support the increased levels of renewable generation and which can provide capacity to be included. Exclusion of these technologies would not be in line with the direction of the electricity market. IWEA notes that particular rules are being proposed for DSUs, which supports the option to also have rules in place for variable renewable generation.

C) Do you have a view on the technology vs plant specific approaches to de-rating?

For certain technologies it may be appropriate to use a technology specific approach to de-rating – i.e. for wind turbines which have a strong interdependence of availability relating to their underling fuel source. It is important that whatever approach is used is done in a transparent manner.

We believe that the capacity credit for wind should be its de-rated capacity credit. The approach to de-rating may differ depending on how the CRM is implemented, for example under the 2 options outlined in Section 2 of this response, different approaches to de-rating may be more appropriate. IWEA requests that there be full transparency and consultation on the setting of de-rating factors.

D) Do you have a view on the historic, projection or hybrid approaches to de-rating?

IWEA believes that a historic approach may be appropriate for existing generation, however this may not be appropriate for new plant.

E) Do you have a view on grandfathering of de-rating factors?

F) Do you have a view on options presented with respect to the non-firm generation?

IWEA supports Option 1 as outlined in the consultation paper "Option 1: Eligible to bid, subject to the same de-rating factors as firm generation of the same technology". IWEA believes that generators with non-firm access should be able to participate like anyone else, and that any constraints are managed at their own risk. This is consistent with the current approach. However the TSO should be incentivised to make sure that there is access to the network at times of system scarcity.

G) What evidence should an aggregator be required to show physical backing?

There should be a requirement to show physical backing, however we do not have a strong view on the level of information required to demonstrate this. The proposal to show a PPA seems appropriate.

H) Should there be a maximum size of unit that can bid into the RO auction via an aggregator, and if so what is that threshold?

There should be no restriction on size of intermittent renewable generator that can be included in an aggregated portfolio. There is no appropriate way to set the level of what size unit would be the maximum, and we can see no clear benefit to having such a rule in place. Therefore in the interest of fairness and transparency we think there should be no restriction in place. There is a potential for large aggregators to have market power, therefore there may be a need to limit the size of an aggregated portfolio, or to have structures in place to limit the market power. This should be dealt with in the market power workstream.

I) Should there be a minimum size below which a capacity provider may not bid directly into the RO auction, and must bid via an aggregator? If so what is that threshold?

There should be no restriction on size of generator that can bid directly into the RO auction. It is likely that smaller participants will not have the resources to participate, however they should have the ability to participate if they see value in it. This may require having the appropriate metering installed in order to participate in the scheme.

J) What pre-qualification criteria should be applied?

There should be strict requirements for prequalification for new entrants and penalties if projects don't build after securing contract. Without this there will be no incentive to stop speculative developers to participate and drive auction clearing prices down. Incentives should be large enough to ensure no "Bed Blocking".

K) Detail of any other considerations respondents feel that we should take account of when determining policy in relation to eligibility.

IWEA does **not** support mandatory participation in the Reliability Option. This option presents a certain level of risk to market participants, and it may be difficult to assess this risk adequately in advance of historical data on the market outcomes resulting from a new market design. While we support that mechanisms are introduced to reduce or mitigate this risk, we still believe that participation should be optional. If there is a concern in relation to market power, consideration could be given to mandatory participation for those that are in a position to exercise market power. Consideration will also need to be given as to how to set the capacity requirement if all participants do not participate – this is an area that will require more detailed analysis.

As outlined in the consultation paper, some variable generators may take the view that the option of earning scarcity rents through the energy market would be a more prudent approach rather than trying to manage the risk of participating in the RO. Therefore this option should be open to participants. This approach may be of particular interest to smaller wind farms which are out of support.

3.5 Chapter 5: Supplier Arrangements

A) Whether the recovery of CRM option fees from Suppliers should be on a flat, profiled, or focused basis.

The IWEA preference is for the current profiled methodology to be used rather than focusing on specific hours. Picking particular hours will be arbitrary, especially with increasing levels of wind, and could leave to distortions in the market at these times since they are known in advance. It would also make sense for the recovery profile to be set out ex ante rather than ex post.

B) Whether the Supplier credit cover arrangements for the I-SEM CRM should be broadly similar to those under the SEM, and whether / what credit cover arrangement should be introduced for capacity providers.

IWEA has a preference for streamlining provision of credit cover (i.e. no double posting of credit if possible) through for example netting of settlement. Also other methods of credit cover provision should be considered for I-SEM.

C) Whether the costs of exchange rate variations (arising from differences in the €/£ exchange rate at the time capacity is procured and its subsequent delivery) should be borne by capacity providers or mutualised across the market.

3.6Chapter 6: Institutional Framework

A) Are the above outlined governance arrangements suitable for implementation of the I-SEM capacity mechanism?

IWEA supports the proposal that the market operator should carry out settlement of CRM.

B) Which options for contractual arrangements are the most appropriate as assessed against the listed criteria?

The IWEA preference is for the "Rules Based Model", subject to robust and transparent governance arrangements. This is most similar to current mechanism and better for market transparency.

C) Are implementation agreements required for new entrants participating in the capacity auctions?

IWEA believes that implementation agreements are required for new builds. There need to be strong incentives for participants to build out if they have won in the auction.

4. Summary and Conclusions

IWEA welcomes the opportunity to respond to this first consultation on the Capacity Remuneration Mechanism. In our submission to the I-SEM High Level Design Draft Decision, we highlighted the significant concerns that the wind industry has with the choice of CRM, the Reliability Option.

IWEA remains strongly opposed to the proposal to have a capacity remuneration mechanism based on reliability options (RO) and would urge the RAs to consider a less complex scheme that interferes less with energy market dynamics and the contracting market. It is readily apparent from the consultation paper that these complexities (e.g. choice of strike price, choice of market reference price etc.) combined with the 'Hole in the Hedge' issue associated with ROs are extremely challenging to resolve. This presents risk management problems but also significant implementation risks given the contracted timeline for implementation. IWEA would therefore suggest that the merits of moving forward with reliability options be given serious consideration at this stage.

From a wind perspective, reliability options are problematic because they create implicit penalties when market prices go high in the reference market.

Notwithstanding the above, IWEA has responded to this consultation with a view to trying to make the existing decision work for wind. A summary of the main aspects of our response is as follows:

- IWEA believes that **all** plant should be eligible to participate, regardless of whether it is already in receipt of support. This is consistent with the current approach in the SEM and provides a level playing field for all.
- IWEA believes that a design principle of the CRM should be that wind generation receives fair payment for its capacity credit contribution to system security.
- The SEM Committee should give consideration as to what will happen if wind deems it impossible, or is effectively excluded for any reason, to participate in these auctions, in particular the impact on the CfD premium pricing and Public Service Obligation (PSO) and Contracts for Difference (CfD) budgets in Ireland and Northern Ireland respectively. Any market change that creates an additional reliance on the PSO or supports is not desirable, as it will make it more difficult for wind energy projects to compete in the energy markets, while also influencing the consumer perception of the cost of renewables.
- In our response we have highlighted 2 options for the treatment of wind energy in the CRM. The first option was outlined in our submission to the I-SEM High Level Design Consultation "Option 1: Wind energy assigned a value outside the RO mechanism", while the second option looks at how certain rules within the RO mechanism could reduce some of the risk "Option 2: Rules that will enable wind participation in the RO".
- Variable renewable generation should not be exposed to additional penalties in the event they are not generating at the time of system stress, due to the nature of the resource.

IWEA looks forward to continued engagement on this issue. IWEA would stress the importance of publishing a proposed decision so that there can be further opportunity for input at that stage. We also suggest that in the absence of a proposed decision additional meetings of the Rules Liaison Group (RLG) would be beneficial.