Invis Energy Ltd, Lissarda Business Park, Lissarda, Co. Cork 9th July 2021

Re: SEM Committee papers SEM-21-026 and SEM-21-027

Dear Gina and Gary

Firstly, thank you for the opportunity to comment on dispatch, redispatch and compensation pursuant to regulation (EU) 2019/943 and the treatment of new renewable units in the SEM. Invis Energy, a joint venture between funds managed by Asper Investment Management and the Craydel group, Ireland's largest independent wind energy generator with over 600MW of wind assets currently operational and with a significant pipeline of assets in construction and development.

Background and Context

With its existing projects Invis Energy has contributed significantly to the steps taken to achieve the Republic of Ireland's efforts to meet its 2020 Renewable targets, and we are committed to investing in more renewable energy projects to contribute to keen to be part of the solution in achieving the forthcoming 2030 targets.

Invis Energy have been active in discussions SEMO and the Regulatory Authorities on Articles 12 and 13 of the Clean Energy Package. As in our original consultation response in June 2020, we applaud the decision to take the two matters together and by so doing deliver a solution to ensure that there is a consistent and stable regulatory framework for ongoing investment into renewable energy projects in Ireland, that minimises cost to the end consumer.

This response is submitted by Invis Energy and reflects our own particular views, it should be noted that we are actively engaged as a member of Wind Energy Ireland (WEI) and strongly endorse WEI's response to this paper. Our response covers what we believe are the key issues at present and how these should be, most optimally, resolved, before responding to the proposals raised in the two papers (SEM-21-026 and SEM-21-27).

Like the SEM Committee and Regulatory Authorities, we are committed to delivering the 2030 targets on emissions reduction and renewable energy at the lowest cost to the end consumer.

OVERVIEW OF KEY POINTS

It is Invis Energy's unequivocal position that the Clean Energy Package became law in Europe on January 1st, 2020. It was chosen by the European Parliament and Commission as the best mechanism to reduce Carbon emissions and encourage ongoing investment in renewable generation capacity. It is therefore now a requirement that all components of the Clean Energy Package are fully adopted and implemented in Ireland.

an additional financial burden on consumers could, by definition, never be unjustifiably low. The interpretation of the RAs is therefore not sustainable on the face of the Regulation.

By way of illustration, for wind or solar units there are no fuel costs so 7a does not apply, however, when dispatched down they will lose financial support (REFIT, RESS, CPPAs etc). For thermal units however, with a fuel cost and under a benefit scheme, when dispatched down they will lose the value of their benefit scheme but save on their fuel cost. Therefore, they should not be overcompensated by paying them the full value of their benefit scheme, as their fuel cost saving should be born in mind.

We trust that this clarifies that the concept of over or under compensation and that under constraint and curtailment firm wind or solar capacity is compensated for the full amount of their lost financial support (REFIT, RESS, CPPAs etc), and that this applies from January 1st, 2020.

c. Changes required to the calculation of the R factor under the PSO levy

Whilst outside the direct scope of this paper; it is important that any revenues for redispatch received by generators in Ireland who are in receipt of a PSO levy payments are not them penalised for the receipt of these revenues under R factor reconciliation calculations. To do so would be against both the direct text of the Article and the spirit of what the Article is seeking to introduce – namely the removal of risk to future revenue, which is attributable to dispatch down. A correction for this could be done simply by excluding the CDSICOUNT and CCCURL charges from the R factor reconciliation process.

2. Constraint levels for new units

By defining new units as non-priority dispatch and noting that SEM-O must dispatch down non-priority units ahead of priority dispatch units, this will inadvertently lead to very high constraint levels for such units. Analysis by WEI has indicated that in some areas of the system new units would see constraint levels four times higher for non-priority dispatch units, at more than 30%.

The second round of the RESS scheme for onshore wind, solar and hybrid projects will go to auction just over a year after the deadline for submissions to this consultation, with the first round of the RESS scheme for offshore wind due in a similar, if not yet exactly defined, timescale. If constraint levels for new units and firm access policy are not resolved this will provide a strong disincentive to the construction of new renewables, leading to a risk that the 2030 targets on emissions and renewable energy generation are not met at the lowest cost to the end consumer, if at all.

As we have noted in Section 1a, redispatch in the I-SEM market is currently on a non-market basis and we believe this will continue in future. Noting that constraint is currently pro-rated, and given the issues raised here, we believe the pro-rating of constraints should continue in the future.

3. Bidding Code of Practice

Currently units must submit simple commercial offer data, which is not bound by the bidding code of practice, and complex commercial offer data, which is bound by the bidding code of practice. The bidding code of practice prevents units including benefits such as REFIT or ROCs in their bids. As complex bids are used for constraints / curtailment this would prevent renewable units being able to bid their lost opportunity cost as per Article 13 of the Clean Energy Package. This is required by law, as defined by European policy to deliver emissions reduction and renewable energy delivery at the lowest cost to the consumer, and we would recommend that this is rectified as soon as is possible.

4. Firm Access Policy

Firm access policy is defined by the TSO and fundamentally affects compensation for constraint and curtailment as noted in 1a above. Without a clear definition as to how this policy will evolve in future this is a risk that developers cannot adequately define the cost of their future units. This will lead to less optimal outcomes in future RESS auctions for all technology types. Following from Section 1a, above, Invis Energy would recommend the use of a "deemed financially firm" date, being that stated in the initial connection offer of a windfarm.

5. Market Implementation of Non-Priority Dispatch

Units under RESS, those out of previous subsidy schemes, and possibly other units will not be paid when the ex-ante market price falls below €0/MWh, and as such need to have the ability to switch off during such periods. This is currently not facilitated in the I-SEM market, forcing such units to incur losses that they should not have to be exposed to.

We note that the implementation of non-priority dispatch renewables units in market operation and settlement systems is extremely complex and may take several years to deliver and in addition there are the issues related to BCoP as noted above.

We would recommend that SEM-O, and market participants be given a proper amount of time to implement a fully working end to end solution, rather than attempt to rush a solution that is not fully ready and spend years before finally delivering what was initially required. Lessons should be learned in this regard from the implementation of the I-SEM market.

In the interim the requirement to deliver full compensation and pro-rating of constraints should be handled through existing system with changes made in the forms of modification to the Trading & Settlement code. As noted previously, this is the law, as defined by European policy in order to reduce emissions and increase renewable energy generation at lowest cost to the end consumer, in the most efficient manner.

Responses to the proposals of SEM-21-026

At a time when renewable generation makes up 40% of the SEM market and is set to rise to 70%, no later than 2030, in order for imbalance prices to reflect market conditions it is essential that the redispatch of renewable units feeds into the calculation of imbalance prices.

To that end renewable units need to participate fairly and equally in the balancing mechanism with all other units, noting the legal requirements of the Clean Energy Package. Whilst this will, correctly, be mandatory for non-priority dispatch units it is essential to avoid undue discrimination to the first non-priority dispatch units. As noted above, due to market dispatch rules, non-priority dispatch units will be dispatched down ahead of priority dispatch units. This will lead to undue discrimination and much larger levels of dispatch down for non-priority dispatch units, especially in heavily constrained areas of the system.

Fortunately, this can be resolved, and, by the same means, Article 13 of the Clean Energy Package can be delivered, that is by allowing current priority dispatch units to bid in their lost benefits when being constrained or curtailed. It must again be emphasised that, in order for this to happen the bidding code of practice will need to be updated and SEM-O and participants will need to put in placed appropriate software systems.

Non-priority dispatch renewables should be treated in the same fashion as other units so the flagging and tagging of actions taken on such units should be as for all other units. We believe that constraint and curtailment are non-market based redispatch today, as renewable units have prices deemed for them by the Trading and Settlement Code, rather than ones they bid in and that this will, and should, continue to be the case in future.

Invis Energy would like to be clear that the Article 13 of the Clean Energy Package became law in Europe on January 1st, 2020. It requires full compensation, including benefits, for constraint and curtailment. Noting that the implementation of non-priority dispatch will take many months, and probably years, for the system operator to implement; Invis Energy recommend, in the strongest possible sense, that the Regulatory Authorities raise an emergency modification to ensure full implementation of the compensation required under Article 13 of the Clean Energy Package with immediate effect.

Responses to the proposals of SEM-21-027

Invis Energy agree that non-priority dispatch renewables should submit Physical Notification (PNs), Commercial Offer Data (COD) and Technical Offer Data (TOD) and, noting the need for pro-rating of constraints, be dispatched on an economic basis just like any other unit.

Similarly, we believe that rules for bid offer acceptances, timing or calculations do not need changing and that where COD values are the same dispatch for non-priority dispatch renewable units would be pro-rated exactly as for units of other fuel types.

Noting our points above, Invis Energy believe that constraint is currently non-market based redispatch and will remain so in future. We would agree that curtailment remain on a pro-rata basis but again note that all units should be able to recoup their full lost benefit when being curtailed.

We would agree that it is vital for SEM-O and participants to work together to resolve the software issues at play and believe that the suggested workshops would form a key part of this. The issue of forcing RESS, out of benefit and other units to incur losses because market systems cannot adequately facilitate such units is unacceptable and must be resolved.

We would emphasise that it would be better to take time and for SEM-O, and participants, to put in place a proper and effective software solution than to attempt to quickly implement a

poor or sub-standard solution, even if it were intended just to be on an interim basis. This is especially important given the levels of renewable generation in question and the fact that this will increase significantly over time, becoming the dominant form of generation in the market.

Noting the above, and to ensure compliance with law, we would, once again, strongly recommend that the Regulatory Authorities raise an emergency modification to ensure full implementation of the compensation require under Article 13 of the Clean Energy Package, with immediate effect, as is required by law, in turn defined by European policy to deliver emissions reduction and renewable energy delivery at the lowest cost to the consumer.

Summary

Invis Energy recommend that:

- Eligible units are fully compensated as is required by Article 13 of the Clean Energy Package, which is the law with effect from January 1st, 2020
- That an emergency modification be brought forward by the Regulatory Authorities to facilitate this in the short term whilst changes are made to market settlement systems
- · Constraint and curtailment remain on a pro-rata basis amongst all units
- Changes to the bidding code of practice to allow renewable units to bid their full opportunity cost are implemented at the earliest possible opportunity
- A "deemed financially firm" date as defined in a units' initial connection offer is used to defined when a unit becomes firm in the market settlement processes
- TSO system changes are brought through to allow renewable units to switch off when they do not clear in the ex-ante markets.

Kind regards,

Andrew Burke.

Head of Trading, Invis Energy