Brookfield

Thomas Quinn
Commision for Energy Regulation
The Exchange
Belgard Square North
Tallaght
Dublin 24

Karen Shiels
Northen Ireland Utility Regulator
Queens House
14 Queen Street
Belfast
BT1 6ED

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RE: I-SEM Capacity Remuneration Mechanism Detailed Design Third Consultation Paper

Dear Mr. Quinn and Ms. Shiels,

Thank you for the opportunity to provide feedback on the third consultation paper of the detailed design of the I-SEM Capacity Remuneration Mechanism proposed for I-SEM. In previous consultation responses on the I-SEM Capacity Remuneration Mechanism, Brookfield clearly stated that we believe that the Reliability Option (RO) mechanism by its design does recognise the contribution that wind generator make to capacity. We further believe that the introduction of Administered Scarcity Pricing compounds the risk for wind generators as they are now the only group of market participants that will be unhedged against the risk of elevated scarcity pricing.

Brookfield Renewable Ireland is part of Brookfield Renewable Energy Group, one of the largest publicly-traded pure-play renewable power platforms globally with over 7,300 MW of hydroelectric and wind capacity across 14 power markets and in excess of 460MW of operating wind capacity with a 200MW wind development pipeline across Ireland and Northern Ireland. Our power operating platform employs over 1,500 people globally, including full operating, development, construction oversight, and wholesale power marketing capabilities. As a 100% renewable generation portfolio, Brookfield offer a different perspective on the consultation response than other market participants due to the unique challenges we with the implementation of the I-SEM market redesign.

Administered Scarcity Pricing

Brookfield are concerned with the disproportionate risk that has been placed on non-dispatchable generation though the introduction of Administered Scarcity Pricing (ASP). In our view the impact that ASP will have on wind generators has not been adequately considered given the 40% target for wind. Brookfield feel that this is a significant oversight from the design.

Wind are the only market participants who will not be protected from ASP in the market. Any uncovered difference payments by suppliers will be socialised and dispatchable generators will be protected through stop loss limits. In SEM-15-103, SEMC stated "*Given the desire not to place excessive risk on capacity providers, it is appropriate to impose limits on the level of difference payments which a capacity provider could be exposed to i.e. set a "stop loss" limit"*. With regard to suppliers: *"the RAs recognised the potential for any shortfall, and discussed "socialising" (or equivalently, socialising) any shortfall amongst all suppliers to protect individual Suppliers against any potential shortfall".* Brookfield believe that it is inappropriate to protect both conventional generators and suppliers and leave wind exposed to uncapped losses from ASP that would result from day ahead forecast error.

Suppliers and conventional generators can both react to scarcity signals; conventional generators through ensuring availability and reliability and suppliers through demand side response. The SEMC suggests that the system security case for ASP is met: *"In the short term: by giving capacity providers strong marginal incentives to be available at times of system stress, and giving all Suppliers strong incentives to reduce load at times of system stress; and In the long term, by driving the right plant mix with the right entry and exit signals for flexible capacity"*. Wind cannot be incentivised to be available at times of system stress. It is inequitable that suppliers and generators who can respond to scarcity pricing are protected

from exposure to ASP while wind which cannot respond to scarcity pricing face uncapped exposure to penalties for day ahead forecast error.

The ISEM CRM is explicitly penal to wind because the Reliability Option is triggered by market prices. The market prices in ISEM will typically be high when demand is high and wind is low. The RO thus excludes wind by design. The SEMC have recognised the risk to wind's participation by setting the lower tolerance band of its de-rated capacity to 0% making participation discretionary for wind while it is mandatory for dispatchable generation. In ISEM CRM consultation 2 the SEMC stated that stop loss limits would apply equally to all technologies but this is not the case if scarcity occurs between day ahead and balancing market time frames. If wind does participate in the RO up to its de-rated capacity (~10%) its stop loss will only apply to this 10% of production. Any forecast error above 10% generation is not covered by the stop loss. Equally if wind decides not to participate in the RO it has uncapped exposure to ASP pricing. Given that the risk of scarcity might be inversely proportional to wind generation the design of the RO precludes wind and it is unlikely to participate. The inclusion of ASP is neither technology neutral (wind's risk is uncapped) nor market participant neutral (stop losses have been built in for conventional generation and suppliers are protected through socialisation).

What is day ahead forecast error? – In order to bid into the day ahead market wind generators rely on a wind forecast to estimate their power output for each half hour period through the day. This is required for a 36 hour horizon at the point of the day ahead trade (ISEM day ahead market closes at 11.00 for trade day 23.00 to 23.00). Wind forecasts fluctuates temporally and increase in accuracy as real time approaches. Typically in established markets with a high penetration of wind, wind generators can use a liquid intraday market to balance their position before gate closure. In I-SEM it is unclear if the intraday market will present enough liquidity for wind to trade its way out of a day ahead position especially if there is a chance of scarcity. Other markets participants are unlikely to be able or willing to offer at scarcity at which point wind will have no mechanism to balance its position before balancing market gate closure.

The occurrence of scarcity will represent either a failure of the capacity mechanism to secure reliable flexible capacity, under estimation of the annual capacity requirement or will occur 8 hours per year in line with the security standard chosen. Wind should not be penalised by scarcity pricing for day ahead forecast error for any of these reasons. In our view the application of ASP to wind will act to disincentive participation in the day ahead market which would place undue burden on the PSO levy.

In summary, Brookfield believe that:

- The RO by design precludes wind. ASP was introduced in the RO design and should not apply to wind.
- Wind generators were not given appropriate consideration when designing the ASP.
- ASP has been introduced to incentivise generation and demand response at times of system stress. Wind cannot respond to pricing signals and should not be exposed to them.
- The RAs have chosen to limit losses of capacity providers through stop losses and suppliers through socialisation. They have chosen to place an uncapped exposure on wind through ASP.
- ASP places disproportionate penalty on wind generators for day ahead forecast error which does not meet the any objectives of the CRM.
- ASP disincentivises participation in the day ahead market.
- ASP could place an additional, unnecessary burden on the PSO levy.

Brookfield suggest that the design of ASP settlement is tailored to ensure that wind is not exposed for day ahead forecast errors or to ensure that ASP only applies to the CRM and that participation in the CRM is mandatory for both dispatchable generation and suppliers.

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Supplier Arrangements:

Brookfield believe that both of the options presented in the consultation place the risk of shortfalls in the socialisation fund onto the suppliers, who have no control over the calculation of the contribution rates. Although the RO is not intended to be a perfect hedge, the contribution rate is designed to ensure that sufficient balance is available so that suppliers are not left with a shortfall. SEMO (who are designated to calculate and propose the contribution rate) should be incentivised to accurately and pragmatically forecast the contribution rate. Placing all risk on suppliers removes any incentive to accurately forecast appropriate contribution rates.

- Option 1 – Suspend and accrue
  Brookfield believe that this could result in large cash flow implications for individual suppliers with no certainty as to when the shortfall would be resolved. This will be a barrier to entry to the market and place unacceptable risk on smaller suppliers with weak balance sheets.
- Option 2 – Immediate additional charge
  This immediate charge exposes suppliers to risks beyond their control. For example, one suppliers inaccurate demand forecasts and subsequent purchasing of power at balance market prices could subject the entire supplier market to an immediate additional charge. This is not an appropriate solution.

Brookfield believe that there should be a centrally managed socialisation fund which SEMO should maintain and retain full responsibility for, including contribution rates, shortfalls, borrowing and k-factored year on year reconciliation.

I would be pleased to discuss these points or any other in relation to the ISEM CRM in more detail as required.

Kind Regards,

Daire Reilly
Regulatory & Power Markets Analyst

Brookfield Renewable Energy Group
5th Floor, City Quarter, Lapps Quay, Cork, Ireland
T 021 422 3673 **M** 087 991 7887
daire.reilly@brookfieldrenewable.com
www.brookfieldrenewable.com

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