

Commission for Energy Regulation
The Exchange
Belgard Square North
Tallaght
Dublin 24

Northern Ireland Utility Regulator
Queens House
14 Queen Street
Belfast
BT1 6ED

Date: 24th January 2017

RE: Energy Trading Arrangements Trading and Settlement Code

Dear Sirs,

Brookfield Renewable welcomes the opportunity to respond to the consultation paper on the Market Design of I-SEM's Energy Trading Arrangements Trading and Settlement Code for the Balancing Market published by the SEM Committee, who comprise of both the Northern Ireland Utility Regulator and the Commission for Energy Regulation (the RAs). The I-SEM Market redesign will represent a fundamental shift from Ireland's current energy market design and wind generation must be central to the new market arrangements as wind will represent 40% of the all-island market by 2020.

Brookfield Renewable Ireland is part of Brookfield Renewable Partners L.P., one of the largest publicly-traded pure-play renewable power platforms globally with over 10,700 MW of hydroelectric and wind capacity across 15 power markets and in excess of 470 MW of operating wind capacity with a 200 MW near term wind development pipeline in Ireland. Our power operating platform employs over 2,200 people globally, including full operating, development, construction oversight, and wholesale power marketing capabilities. In addition to operating a wind portfolio in the Single Electricity Market, Brookfield Renewable also actively trade power across the interconnectors between SEM and BETTA.

This consultation seeks to codify the detailed rules of the ISEM Balancing market and is of the utmost importance to wind generators. Brookfield Renewable restates that the new market arrangements must retain confidence in investments already made and for the substantial levels of investment required to meet ambitious renewable energy policy objectives by providing transparent rules consistent with the decisions taken in the ISEM High Level Design.

Brookfield Renewable is supportive of the market integration of wind but reiterates that any erosion of the commercial position of existing wind generators amounts to retrospective changes that would be extremely damaging to Ireland's attractiveness for investment. In this regard and recognising that it is an issue also to be considered with the Department of Communications, Climate Change and

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Environment (DCCA), Brookfield request that clarity is provided on the issue of REFIT compatibility with ISEM without further delay.

The ISEM High Level design seeks to ensure that the all-island electricity market is compliant with the European Target Model for Electricity. The Target Model and the ISEM High Level design mandates the introduction of balance responsibility for all market participants, including intermittent generators such as wind. However, Brookfield would like to highlight that the Common Rules for an Internal Electricity Market¹ require sufficient liquidity to be present before balancing markets are introduced. Brookfield Renewable believe that this issue has yet to be addressed by the RA's tasked with delivering a fit for purpose ISEM market design.

In our view ISEM will not contain sufficient liquidity to deliver properly competitive balancing markets and hence the RAs must use this opportunity to re-examine the introduction of balance responsibility through the Balancing Market proposed within the rules outlined in this consultation.

Brookfield Renewable's key issues relating to the Trading and Settlement Code are outlined below, namely Imbalance Pricing and Exposure, the Aggregation of Renewables in Ex-Ante Markets and Compensation for Curtailment:

Imbalance Pricing and Exposure

As already stated, the introduction of balance responsibility is the largest concern for wind generators in I-SEM. While Brookfield expects that no retrospective changes will be made to REFIT-supported wind generators, a significant portion of the wind generation fleet will be exposed to system imbalance price for deviations from their wind forecast forecast which will result in an erosion of market revenues.

Brookfield share other market participants concerns regarding the volatility and unpredictability of the balancing market prices in a heavily constrained, small island market electricity system. These concerns are heightened due to an expected lack of liquidity in intraday market, which will represent the only avenue for wind generators to trade to balance and mitigate the exposure to volatile imbalance prices.

¹ **EU/2009/72: (35)** *"In order to ensure effective market access for all market players, including new entrants, non-discriminatory and cost-reflective balancing mechanisms are necessary. As soon as the electricity market is sufficiently liquid, this should be achieved through the setting up of transparent market-based mechanisms for the supply and purchase of electricity, needed in the framework of balancing requirements. In the absence of such a liquid market, national regulatory authorities should play an active role to ensure that balancing tariffs are non-discriminatory and cost-reflective."*

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As noted by the Council of European Energy Regulators, “regulation must be flexible for evolving market, promoting competition and innovation”². With this in mind and given Brookfield’s concerns regarding the potential imbalance exposure of market participants due to market power, liquidity and a volatile imbalance pricing methodology, Brookfield request that the RAs examine closely the levers at their disposal to ensure that there is a sensible transition from current market arrangements. Specifically, the imbalance pricing parameters for Price Average Reference (PAR) and the De Minimus bid threshold must be set at a level that prevents extreme volatility in imbalance prices.

Due to the uncertainty that exists around the formation of the balancing market prices and the exposure that this could cause, Brookfield believe sensible Transitional arrangements are required as part of the ISEM Trading and Settlement Code that provide the RAs with a mechanism to review the performance of the Balancing Market and make adjustments to parameters where they have led to unintended consequences.

Brookfield also note that Administered Scarcity Pricing (ASP), introduced through the ISEM Capacity Mechanism, the Reliability Option (RO), places more risk on wind generators than other market participants. Generators and suppliers are protected from undue exposure to ASP through arrangements within the RO such stop loss limits for generators and socialisation arrangements respectively. However, wind generators (who are excluded from the RO by design) have an uncapped exposure to ASP. It is inappropriate to place this exposure on wind generators through the CRM which has not been and should not be designed to incentivise accuracy in wind forecasting.

Aggregation of Renewables in Ex-ante Markets

Brookfield believe that Aggregation of Renewables above the De Minimus threshold in the ex-ante markets should be facilitated in the Trading and Settlement code, as per the ISEM High Level Design. Unit based bidding is impractical for wind generation portfolios who need to update small positions close to delivery with up-to-date forecasts. It will be difficult for wind to find matching orders for small trade sizes for individual wind farms in the intraday market, thus further reducing the efficiency of the intraday market. This additional barrier to participation in the ex-ante markets for wind generators runs contrary to the ISEM High Level Design and broader EU Electricity market policy which seeks to promote renewable participation in electricity markets.

Conventional generators have indicated that it would be preferable to trade with aggregated wind volumes. Aggregation of renewables in the ex-ante timeframe will also allow reduced administration in the ex-ante markets through a reduction in transactions, registration requirements, data submission and data processing.

² [European Energy Regulators’ Overview Paper: Initial Reactions to the EC’s proposals on Clean Energy](#)

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To meet the ISEM High Level Design there is a requirement for aggregation of renewable units into single or multiple portfolios in the ex-ante markets while maintaining unit based imbalance settlement principles and equitable constraint and curtailment settlement. Brookfield request that at this stage, prior to the finalisation of ISEM Balancing Market rules, the RA's direct the market operators to deliver a solution to enable aggregation of renewables in the ISEM ex-ante markets.

Compensation for Curtailment Actions

Brookfield believe that the decision to remove compensation for curtailment actions for wind generators must be revisited immediately based on the draft EU Clean Energy Package which states that curtailment of renewable generation should be compensated. Curtailment of wind generators is an example of a network balancing action, similar to constraint actions to ensure the safe and stable operation of the electricity system across the island of Ireland. The EU Clean Energy Package recognises this and therefore the removal of compensation for curtailment must be viewed as discriminatory against wind generators. Brookfield request that the RAs remove the additional complexity introduced into the imbalance settlement algebra to remove compensation for curtailment and bring ISEM in line with other European markets by restating compensation for curtailment actions.

Further detail and points of note are provided in the response template in Appendix A. Brookfield Renewable would be pleased to discuss these points in greater detail if necessary.

Kind regards,

Ciarán O'Brien
Regulatory & Trading Manager
Power Marketing

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APPENDIX A RESPONSE TEMPLATE

SUMMARY INFORMATION

Respondent's Name	Brookfield Renewable
Type of Stakeholder	Generator & Supplier
Contact name (for any queries)	Ciarán O'Brien
Contact Email Address	ciaran.obrien@brookfieldrenewable.com
Contact Telephone Number	021 4223608

I-SEM TSC COMMENTS

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
1	Part B: B.18	Suspension & Termination	Market operator may issue a suspension or termination order where the party has been suspended or issued with a termination order under the Capacity Market Code or the NEMO rules.	<p>Opens participants up to unwarranted commercial risk of automatic suspension from Balancing Market at the discretion of the Regulatory Authorities or Market Operator with no apparent recourse to appeal.</p> <p>If a participant adheres to all of the balancing market code rules there should no circumstance in which they are suspended from the balancing market.</p>	
2	Part B: E.2.1	Parameter Setting	<p>Price Average Reference and De Minimis threshold parameters can be changed by the Regulatory Authorities following request and report/analysis by Market Operator.</p> <p>We request clarification on when PAR be published and also whether industry will have an opportunity to query it.</p> <p>Brookfield believe that price reviews should be performed following ISEM market go-live to ensure that the outturn prices are reflective of balancing market intention and do not place undue exposure on market participants.</p>		Part C: C.7.1.1

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ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
3	Part B: E.3.2	Imbalance pricing bids and offers	Market Operator shall exclude each accepted bid/offer for which the absolute accepted bid/offer quantity is less than the De Minimis threshold. Clarity is requested on why this is not just for De Minimis generators.		
4	Part B: E.4.1.	Administered Scarcity Pricing	Full Administered Scarcity Price is determined by the RA's from "time to time". We seek clarification on this time period.	The time period for the determination of full administered scarcity pricing should be defined.	
5	Part B: E.4.5.1	Demand Control Quantities	If the short term reserve quantity is less than the operating reserve requirement, the following demand control events occur: <ul style="list-style-type: none"> • Customer voltage reduction in NI • Emergency or exceptional voltage control in ROI • Automatic load shedding in NI • Low frequency demand disconnection in ROI • Manual disconnection in NI • Demand Control on instruction of TSO in ROI 	Should participants in opposite jurisdiction to local voltage event who cannot respond to the event be penalised by ASP? It is unfair to apply a market wide scarcity price on all participants when the scarcity has been caused by a local system issue, beyond the ability of participants outside the constraint to resolve. Wind are unprotected (unlike suppliers and generators) from ASP when it does occur.	
6	Part B: F.2.2.1	Scheduling agent	We request clarification on who appoints the scheduling agent; is it the responsibility of each individual participant? Or will the NEMO act as the default scheduling agent for all ex-ante trades?		
7	Part B: G.10.1.1	Management of credit cover	We request clarity on the fixed credit requirements per unit type.		

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ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
8		Data and Market Transactions	We request confirmation that a Market Participant Update Document (MPUD) will be published and that market participants will have an opportunity to provide feedback on same.		
9	Appendix E Table E.2	Annual Data Publication List	How will we be made aware that the annual data publications have been issued? Will participants be notified of same?		
10	Appendix E Table E.3	Monthly Data Publication List	How will we be made aware that the monthly data publications have been issued? Will participants be notified of same?		
11	Appendix E Table E.4, E.5, E.6, E.7, E.8	Daily Data Publication List	Would like clarification on the procedure if data fails to be published on any given day. Will a notification email be issued to data users? What is the protocol in the event of a communication failure?	Requests for additional data to be added: <ul style="list-style-type: none"> - Standardised Outages Report on a daily basis or Available Capacity. - Demand Forecast. - Bidding of generators report prior to Settlement periods. - For Price Tables: We would like visibility of what was Submitted as well as Accepted. - LOLP Report (Level of lost probability). - Demand & Surplus Report – 14 days ahead if possible. 	
12	Appendix G (3)	Settlement Statements, Reports and Documents	Reference to Paragraph G.7.7.2 which doesn't exist.	Correct reference to Paragraph G.7.2.2	
13	Appendix G (3 and 4)	Settlement Statements, Reports and Documents	Clarification is requested around Market Operator Charges Invoices. Are these now to be referred to as Settlement Documents?	Clarity required regarding the Market Operator weekly /monthly invoicing process.	Agreed Procedure 15
14	Appendix I Section 1	Flagging and Tagging	We request clarification on the unit constraints which will feed into the flagging and tagging process.		

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ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
15	AP1: 2.2	Unit Registration	<p>The text outlines that “A party may not register more than one participant in each jurisdiction”.</p> <p>This creates issues for use due to IT, Settlements, Project Financing and also contracting strategy. It also significantly adds to the costs and effort required by IT and Settlements.</p> <p>Currently Brookfield have several participants under a couple of parties. It’s unclear how this will be dealt under the transitional arrangements.</p>	We request that this requirement is removed and that a party may be allowed to register more than one participant in each jurisdiction.	Part B: E.5 Part C: C.4.1 AP3: 2.5
16	AP 3: Section 2.5	Communication Channel Qualification	Once a party completes communication channel testing on one participant successfully, will it be necessary to complete it for every added participant? Our understanding of the new T&SC is that it is only to be completed by Party level.	We seek clarity on whether a party is allowed to register more than one participant in each jurisdiction and if so, is communication channel testing required at party level or participant level?	AP1: 2.2
17	AP 3: Section 2.8	Communication Channel Suspension	<p>In the event of suspension, how do we obtain information on settlement data and invoices?</p> <p>We also request further information on the balancing market interface, will this be like the existing market participant interface?</p>		

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ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
18	AP 6: 2.3.3	Notification	The Market Operator shall provide access to Data Publications through the Market Operator website and, where required, may also provide such data as Data Reports through the Balancing Market Interface. In the case of Data Publications via the Market Operator website, the Market Operator shall not require that such access is conditional upon the relevant user possessing a Digital Certificate.	We request more detail on the Digital Certificate they are referencing here. Is this something we need to apply for in advance?	
19	AP 6: 2.3.5	Publication updates	In cases where data that is required by the Code to be published by the Market Operator has been recalculated by the Market Operator or re-submitted to the Market Operator after being updated, improved, or corrected, the Market Operator must publish the updates in a timely manner as soon as reasonably practicable or as otherwise required by the Code.	Would like clarification on what will happen in such instances as this; will an email notification be issued to data users?	
20	AP 11: 2.1.1	Categorisation and Prioritisation of Helpdesk Requests	Under Category 3, General Urgent Query there is a typographical error.	Replace "Coded" with "Code".	
21	AP 12: Table 3.5	Progressing and Reaching a decision on Standard Modification Proposals and Agreed Procedure Modification Proposals	Under Step 9, the text references Step 31 however there are only 16 steps.	Insert correct step reference.	

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ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
22	AP 15	Settlement and Billing	Can further clarity be provided on the new invoicing process? It appears Settlement Documents will only be issued via e-mail and will include a mix of all settlement runs per participant.	Our preferred option would be for Invoices/Settlement Documents to be downloaded through a market participant interface.	
23	AP 15	Settlement and Billing	VMOC and FMOC charges to be included together on one invoice. Due to the different settlement billing periods, weekly and monthly it would appear better practice to issue separate invoices especially due to shadow settling and reporting.	Our preferred option would be for VMOC and FMOC Settlement Documents/Invoices to be issued separately.	
24	AP 15	Settlement and Billing	Can further clarity to be provided regarding Settlement Document timelines for the capacity market. Are these still to be issued 7 working days after end of billing period?		
25	AP 18	Suspension and Termination	All page numbers reference Agreed Procedure 13.	Correct page numbers so that they reference AP18 (rather than AP13).	