

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

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

Date: 12th February 2016

RE: DS3 System Services Auction Design

Dear Ms. Cloonan and Mr. McCorrison,

Thank you for the opportunity to engage and provide our feedback on the DS3 System Service Auction Design Consultation. 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. Brookfield Renewable Ireland have an operating portfolio of 464 MW of onshore wind across the island of Ireland with a development pipeline of aa further 200 MW of wind and tidal generation.

Brookfield would like to commend the progress made to date in the DS3 work stream particularly the recent successful increase of the SNSP limit to 55% on a pilot basis (showing SNSP above 50% for 10% of the duration of the trial) as well as the progress to date on the crucial delivery of the RoCoF Grid Code modification within DS3. Brookfield would also like to reiterate the importance of the delivery of DS3 to:

- Allow Ireland to reach it's RES-E 2020 targets by ensuring renewable curtailment levels are minimised
- Ensure that the benefit of renewable generation to reduce wholesale electricity prices for Irish consumers can be facilitated , and
- Avoid the damage to Ireland's reputation as an attractive location for inward investment that higher than expected curtailment levels brings to both generators in operation and projects in development.

In SEM 14-108, SEMC outlined the vision for the procurement of System Services, being: *"encourage the development of competitive markets for all system services, ensuring best outcomes for consumers; attract new investment, enhancing the performance of the system; and facilitate the increase in the SNSP to 75%"*. Brookfield believe that there is reasonable concern that not all of these objectives will be met under the current proposals as discussed below.

Brookfield are concerned over the complexity being proposed in the system services enduring arrangements through the last number of consultations which, due to the combination of ISEM work streams running in parallel has not provided adequate opportunity for stakeholder engagement with industry. These complexities which create concerns over the delivery of DS3 in a timely and an equitable manner are summarised below.

- Market participants in I-SEM will be commercially exposed to the interactions of DS3 with the ISEM Energy and Capacity markets. This is not dealt with in sufficient detail in the most recent consultation which has been published without appropriate industry engagement.
- Brookfield Renewable believe that the ISEM Capacity and DS3 auctions are heavily interlinked and the combined result of these auctions should provide a competitive bidding process that enables new investment and/or sends exit signals to existing plant. This interdependency has been highlighted by the dot.econ report supporting this consultation, which also states *"...there should be no particular difficulty in integrating an auction*

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of capacity with an auction of system services....". Brookfield think that it is inappropriate for the RA's to ignore this interdependency and therefore combined auctions for capacity and system services should be run.

- The RA's also state that a participant withdrawal might result in them accepting a lower volume of services. This would compromise the ability of the DS3 program to reduce curtailment and increase the SNSP limit. Brookfield Renewable are strongly opposed to accepting a lower volume of System Services than is required. Not only will this result in higher curtailment levels but it will also drive uncertainty amongst investors seeking to provide System Services by further increasing the complexity and potential outcomes of the DS3 System Services Auction.
- The risk allocation proposed in this consultation is unfairly weighted away from the System Operator and towards System Service providers through the payment basis and bidding restrictions proposed. System Services providers may not be able to address this risk through the proposed regulated tariff or through capped auction clearing prices. Brookfield feel that it is inappropriate to leverage risk on System Services providers without providing them the tools to mitigate this risk.
- The aforementioned risk will be magnified for new investment. If it is the case that auction results will be capped at the level of the Regulated Tariffs, then the Regulated Tariffs must be set at a level that delivers new entrants or upgrade of plant required to allow the required volumes of the individual system services to be procured.
- In the Contingent Availability model proposed by dot.econ for availability payments, Brookfield Renewable are concerned that the prescriptive rules governing 'DEC' bids for System Service providers will negatively impact generators ability to capture energy revenues through constraint payments in the Balancing Market. In order to capture these revenues, plants must therefore price this into their system services bid which the regulated cap on the DS3 auction clearing price might prevent them from doing. For plants that rely on high price periods to recover their costs this is a significant risk and may provide perverse signals to generators and system operators with regard to their actions in the Balancing Market. In our view, the ISEM Capacity Mechanism and not DS3 System Services provides the best means to generators of hedging volatile energy prices in exchange for a predictable revenue stream.

Brookfield Renewable would like to reiterate the legal obligation to facilitate renewable access to the network and to minimise curtailment to ensure compliance with the RES Directive. As highlighted above, Brookfield believe that the growing levels of complexity could impact on the timely delivery of DS3 System Services needed to increase SNSP levels, minimise curtailment and deliver the benefits of renewables to consumers.

I will be pleased to discuss these points or any more in relation to Brookfield's position in more detail. The remainder of this response answers the questions put forth in the consultation document.

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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Brookfield Renewable Ireland Limited
www.brookfieldrenewable.com

Registered Office: Floor Five, City Quarter,
Lapp's Quay, Cork
Directors: George Martin, Tom O'Brien, Ralf Rank,
Kevin McCarthy
Secretary: Kevin McCarthy

Registered in Ireland No. 137889
VAT No. 4658412F

High Level Auction Design

Question 1: What are your views on the proposals to try to ensure a level of consistency between CRM and DS3 System processes?

Brookfield believe that the CRM and DS3 auctions must be combined. With 75% SNSP and 40% of Irelands electricity being supplied by price taking renewables, dispatchable generation will need to recover increasing proportions of their costs outside of the energy market. The I-SEM capacity and system services auctions are the only mechanisms for dispatchable generation to recover this missing money. Given that both processes involve competitive bidding, participants need to be able to establish a minimum revenue requirement to determine a bid strategy for both auctions. It is imperative that the auctions are combined so that participants will not be a regret winner in one auction if they subsequently fail to clear in the second. This will also avoid rerunning auctions and to ensure that the results provide a cost effective solution for the consumer.

Question 2: Do you consider that the SEM Committee should consider facilitating a link (where participants require) to only proceed with participation in the DS3 System Services auction subject to a successful outcome in the CRM auction or (vice versa) i.e. create an interdependency that as much as possible mitigates the need for auction re-runs.

Brookfield believe that the auctions will only be resolved cost effectively if they are combined. If the RAs only proceed with participation in DS3 system services auction pending success in CRM, as proposed, they are effectively just scheduling the system services auction after the CRM auction. The same circular problem then arises with the CRM auction where a participant clears CRM but needs DS3 revenues to which they are unsuccessful. Brookfield believe that this suggestion by the RAs just shifts the issue to the CRM work stream and does not solve it. Due to the circularity involved, the auctions must be combined.

Question 3: What are your views on managing the interactions between the CRM and DS3 System Services auctions?

Brookfield believe that the CRM and the DS3 System Service auctions must be combined in order to:

- minimise the cost to the consumer,
- facilitate new entry,
- allow existing generators bid cost reflectively, and
- ensure the delivery of DS3.

The only way to manage the interactions of these two auctions is to combine them. The consultants hired by the regulators have stated in their report that there is no problem incorporating capacity into the DS3 auction. Industry have stated repeatedly that this is their preference. Brookfield think that it is imperative that the regulators combine the auctions given the advice from industry and their own consultants.

Question 4: Do you agree with the proposals for separate DS3 System Services long-term and short-term auctions as set out in the DotEcon recommendation?

Brookfield believe that new and existing participants should compete on a level playing field based on the cost of provision of service. Brookfield believe that there is a large degree of subjectivity in determining the volume requirements for short term and long term auctions which is another source of uncertainty for new entrants and requires the system operator to pre-empt the results of one or both of the auctions to set the volume requirements.

Question 5: Do you think the treatment of long-term contracting for System Services should be aligned with the proposed framework in the CRM?

Brookfield strongly believe that the CRM and DS3 system services auctions and clearing mechanisms should be combined as per answers above.

Question 6: What are your views on the proposals to calculate clearing volumes for the auction as set out by DotEcon?

Brookfield believe that the methodology chosen should ensure system service volumes procured deliver DS3 objectives in full and ensure that curtailment is minimised and SNSP levels of 75% are achieved. Failing to meet these objectives in full negatively impacts on both operating wind generators, projects hoping to contribute to 2030 targets and prevents consumers from benefitting from lower wholesale electricity costs from higher levels of renewable generation.

Question 7: Do you agree with the proposals for introducing granularity for the purposes of calculating auction clearing volumes?

Brookfield believe that there is merit in introducing granularity where required. The process should seek to award contracts to plant that are required to deliver at certain times and system supply scenarios. For example, wind is required to provide a number of the system services and therefore should be targeted for those services. However any granularity introduced must be considered alongside market power and investor certainty concerns.

Question 8: What are your views on the proposal to introduce flexibility on the volumes to be procured?

Brookfield strongly oppose introducing flexibility for the system operator to reduce the volume requirements based on subjectivity regarding acceptable pricing. A minimum volume requirement should be introduced to ensure that the services needed to deliver DS3 in full are procured through the auction design. It would be inappropriate for the system operator to accept lower volumes than required and subsequently procure services cheaper off auction losers.

Bidding Parameters:

Question 9: What are your views on the proposals for package based bidding?

No comment.

Question 10: Do you consider that a provider will be able to predict its expected availability accurately on an annual basis?

Brookfield believe that market participants will be able to predict market availability due to their position in the merit order with reasonable certainty on an annual basis. However generators cannot be expected to forecast the decisions of the TSO in constraining them on which will contribute to their availability to provide DS3 system services. We recognise that there should be some incentive to accurately reflect ability to provide the services to ensure adequate volumes of each of the system services will be delivered.

Question 11: Do you agree with DotEcon's proposals in relation to quantity units for the services outlined above?

No comment.

Question 12: What are your views on a suggested cap or clawback on expected availability per plant to manage DS3 System Service expenditure?

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Brookfield believe that the TSO should have the ability to manage the expenditure of the DS3 system services and to prevent gaming of the system and market power abuse. Therefore a revenue stream that is capped at some point above a generators bid price is appropriate. This should be balanced by the need to incentivise generators to deliver additional volumes of system services.

Auction Pricing:

Question 13: Do you consider the DotEcon Report to have accurately captured the considerations for availability the TSO should use for different DS3 System Service products? If not, please explain your reasons why.

Brookfield believe that 'technically realisable' is an apt definition for availability as it signals flexible plant that the system requires to manage high levels of wind penetration.

Question 14: Do you agree with the proposals to ensure lower payments are received by System Service providers who are not successful in the DS3 auctions but who are dispatched by the TSO to provide System services, than those providers who are successful in the Auctions?

No comment.

Question 15: Do you agree with the proposals for determining the winner/price as set out in the DotEcon recommendation?

No comment.

Question 16: Do you agree with the proposed treatment of interconnectors? Should this apply equally to all interconnectors?

No comment.

Auction Commitment Requirements:

Question 17: Do you agree with DotEcon's proposed preferred model of Contingent Commitment in DS3 System service Auction procurement?

Brookfield recognise the flaws of both the full and no commitment model (as discussed in response to Question 22 below) and agree that an alternate solution is required. However, we also accept market participants concerns that the contingent commitment model as proposed can result in foregoing inframarginal rents at high price times which could result in a significant portion of a generators revenue stream. Brookfield feel that this interaction with the energy market warrants further consideration from the regulators.

Question 18: Do you agree with the position proposed by DotEcon that successful winners in the DS3 Auction should bid in the BM only at DEC prices set to a proxy of the energy price (section 7.2 above)?

See response to question 17, above.

Question 19: Do you agree with the position proposed by DotEcon that successful winners in the DS3 Auction should bid in the BM only at INC prices set to a proxy of the energy price, or on a costs minus System Services income basis (section 7.2 above)?

Yes. Brookfield believe that it would be inappropriate not to allow generators to recover their costs in INC bids given the caps applied to the auction clearing prices and therefore the inability of generators to factor these costs into their system services bids.

Question 20: Do you support the application of an alternative contingent commitment model that avoids direct commercial interaction and obligation within the Balancing Market (section 7.3 above)?

Brookfield believe that there is not sufficient detail in the consultation to back this model over the contingent model favored by dot.econ. However, we reiterate the need for further consideration for the interactions of system services actions with the energy market.

Question 21: Do you agree with the proposed treatment of plant that does not require it to be in the schedule or on for provision of System Services?

No comment.

Question 22: Do you believe that either the Full Commitment model or the No Commitment model offers a better option for DS3 System Service providers? Please explain your reasons for your view.

Brookfield believe that the full commitment model will not provide an economic outcome for consumers as plants that are fully committed will have to give up energy revenues to ensure availability for system service provision. This will increase the price bid into auctions for services that may not be required at the same level all year round. Brookfield believe that this proposal is also unworkable in light of the capped revenues proposed.

The no commitment model places no incentive on providers to deliver the service that they have committed to. In a liquid competitive market this would reduce the bid price significantly. With I-SEMs locational and market power concerns this model could see participants awarded contracts at a significant premium to the commitment they would provide. The system operator would then have to take non-energy actions to provide adequate system services at an additional cost to the consumer. But there is an overriding concern that the no commitment model does not provide sufficient performance incentives to System Service providers to ensure the delivery of DS3 in full.

Brookfield support a contingent commitment model subject to further consideration of the interactions of the DS3 System Services revenue streams with the energy and I-SEM capacity markets.