



Consultation on Cluster Methodology Review

Summary of responses and matters raised

March 2024



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1. Introduction

Responses to the consultation on cluster methodology review were received from:

- NIE Networks
- Mutual Energy
- Renewable Energy Systems Limited (RES)
- Renewable NI (RNI)

1 response was confidential and has not been published.

We also received 2 late responses; these have not been considered.

2. Responses

Reference	Comment
NIE Networks	NIE Networks fully agrees with the proposals as set out and have nothing further to comment on at this stage.
Mutual Energy (MEL)	<p>Mutual Energy are supportive of the proposed incorporation of demand at clusters as they see this as increasing the ability of Northern Ireland meeting the legislated 80% RES-E target by 2030.</p> <p>Mutual Energy are supportive of the use of storage given current oversupply issues which are being faced. It references the Shaping Our Energy Futures and SONI Long Duration Energy Storage consultations which both stress oversupply is an important issue which needs to be addressed, noting that allowed demand as well as storage within the cluster methodology would mitigate this risk. Adding how this will be subject to the employment of appropriate charging arrangements.</p> <p>Mutual energy note that it may be beneficial to consider some level of socialisation of cost for the integration of biomethane onto the gas network. In their view, this could serve to improve access to the grid and provide an opportunity for growth in the biomethane sector in NI by allowing easier access to the grid.</p>
Renewable Energy Systems Limited (RES).	<p>RES Supports support ongoing review and improvement of the Cluster Charging section of the NIE Statement of Connection Charges.</p> <p>However, RES believes that in many areas the changes being proposed are unnecessarily conservative and are likely to hinder delivery of essential new net zero enabling projects at a time when the opposite mindset is required i.e.</p> <p>Standardisation of Capacity Allocation RES disagree with NIE Networks' recommendation to standardise capacity allocation through the rigid application of a 0.95 power factor, stating this approach will result in underutilisation of the cluster transformer capacity. They note a cluster specific rudimentary load flow study to determine correct MVA rating will realise significant efficiencies in return for insignificant resource burden.</p> <p>Cluster Designation There is clear recognition that increased urgency and decisive action is required in order to drive acceleration of new grid delivery in GB. We think it is now essential that the same theme be introduced into the management and delivery of new grid connections in</p>

Northern Ireland.

Cluster development needs to start earlier in order to reduce delays to generator connection. Renewables projects that are in the Environmental Impact Assessment (EIA) process should count for the purposes of calculating the needs case qualifying MW. We accept a suitable scaling factor of 0.7 or similar should apply. Industry experience of the cluster process thus far is that their development does not start early enough, such that the earliest generation projects are subject to long connection timescales of circa 8 years.

Timing

RES agree with the UR view that the timing provision should be clear. The current timing provision is complex and difficult to implement.

The right of a generator to exit a cluster on grounds of delay is currently restricted to the generator that is first in the queue. This is arbitrary and potentially discriminatory. This restriction should be removed.

RES urge the UR to press NIE to amend the methodology to remove the requirement for a generator seeking exit from a cluster to be the first in the queue.

Technical Assessment – Geographic Extent of a Cluster

RES welcome and support the proposal to extend the guideline geographic range of a cluster to 15km with the potential to deviate on a cluster specific basis.

Drivers and Benefits of Change

RES agree with the NIE Networks recommendation to include the connection of large customers to existing cluster infrastructure.

RES think it aligns with the NIE Networks duty to “develop and maintain an efficient, coordinated and economical system of electricity distribution”.

Demand Security of Supply Requirements

RES agree with the NIE Networks recommendation that demand customers connecting at existing clusters, like any other demand, be subject to Engineering Recommendation (EREC) P2 (NI) security requirements and SONI’s.

Transmission System Security and Planning Standards (TSSPS).

RES also agree with NIE Networks recommendation that demand customers connecting at existing clusters, like any other demand, be subject to Engineering Recommendation (EREC) P2 (NI) security requirements and SONI’s However RES agree with NIE Networks recommendations to issue a consultation to update EREC P2 to reflect that the demand element of electricity storage is very unlikely to behave as a normal demand customer and should not be subject to normal demand security requirement.

Storage assets should not be subject to mandatory security requirements, but instead, developers be allowed to opt for their chosen

	<p>security level, subject to their own commercial considerations.</p> <p>Network and Large Customer Demand Connection Charges RES support the NIE Networks proposals to charge large demand customers connecting at clusters for their connection assets including any infrastructure required in order to provide security of supply. RES also support recovery of costs of network reinforcement projects which use existing cluster infrastructure through use of system charges. The use of constructed cluster infrastructure for demand connection should result in economies through optimised use of those constructed cluster assets and minimisation of build of additional infrastructure.</p> <p>Demand at Clusters - Technical considerations RES agree that, as the primary purpose of cluster substations is to facilitate renewable generation, the 33kV busbar voltage at clusters should not be changed to facilitate demand connections.</p>
Renewable NI (RNI)	<p>Standardisation of Capacity Allocation RNI does not agree with NIE Networks' recommendation to standardise capacity allocation, which would lead to a 90MVA transformer being regarded as having a generation capacity of 85.5MW, based on operating power factor of 0.95 at generation sites. This is because MVARs are gained or lost along the interconnection circuits and MWs lost depending on circuit characteristics and operating conditions. Taking this approach may lead to capacity underutilisation of the cluster transformer. An appropriate approach is to determine the generation capacity based on a load flow study which would more accurately predict the impact of generator sites 0.95 operating power factor.</p> <p>Cluster designation RNI has always agreed with planning permission being linked as a requirement in the connection offer process. However, given that clusters can take up to 8 years to develop, designating a cluster only after planning has been achieved can result in generators having multiple years of development time. RNI therefore propose that consideration be made to facilitate where possible earlier designation of a cluster based on generator projects that have commenced EIA process, with a lower weighting factor. NIE Networks should have sufficient intelligence to make ahead of time investments in least regrets projects and therefore minimise the risk to consumers whilst facilitating the achievement of the 80% by 2030 requirement for renewable generation.</p> <p>Timing RNI agrees with UR comments that the timing provision should be clear. The current timing provision is complex and difficult to implement. It is unclear why the option to exit a cluster is only available to the first in the queue. There are instances where the first in queue</p>

generator finds cluster timescales acceptable, whilst the next in queue finds such timescales unworkable

Technical Assessment -Geographic Extend of a Cluster

RNI has no concerns on the proposals regarding the geographic extent of the cluster and support the update to reflect the new 15km to be used as a guideline only.

Definitions

RNI has no concerns with the proposed revisions of or new definitions.

Drivers and Benefits of Change

RNI agrees with NIE Networks' recommendation of the connection of large customers to existing cluster infrastructure. RNI contend that this would not create an additional burden to NI consumer in terms of cost.

Demand Security of Supply Requirements

RNI agree with NIE Networks recommendation to issue a consultation to update EREC P2 to stop treating the demand element of electricity storage as normal demand subject to normal demand security requirements.

Storage should not be subject mandatory security requirements, but instead the developer should be allowed to opt for their chosen security level, subject to their commercial considerations.

Network and Large Customer Demand Connection Charges

RNI is supportive of the proposed changes to the SOCC to accommodate demand connections and networks reinforcements to a cluster. These changes will require large demand customers to pay for their connection assets and any infrastructure required to comply with the security standards.

The use of constructed cluster infrastructure for demand connection would result in less additional infrastructure being built thus is more efficient and economic.

Demand at Clusters – Technical considerations

It is RNI's understanding that the charging mechanism is not being changed under this consultation and as such only network reinforcements are expected to be subject to this funding arrangement. The benefits of demand customers or system reinforcements being connected to developed on the back of (respectively) clusters (efficiency and economy) would not be negated by this approach

Cluster Innovation

As noted in the RNI response to NIE Networks Cluster Methodology Review Consultation, clusters of the future will need to be designed to cater for larger size generators and maintaining 90MVA transformer size will likely be inefficient- recommend dropping the standardisation of cluster capacity to 90MVA.

RNI urge the consideration of incorporating dynamic line ratings and managed overloading of transformers in their approach to design of clusters.

Rebate

RNI has previously highlighted the need for legislation to allow for a rebate for those who fund a second transformer when other developers connect. There should be consistency regarding charging irrespective of whether it relates to the connection of a first transformer or a second/third transformer.

RNI suggest that the UR consults with DfE on the necessary regulatory changes required to facilitate rebating