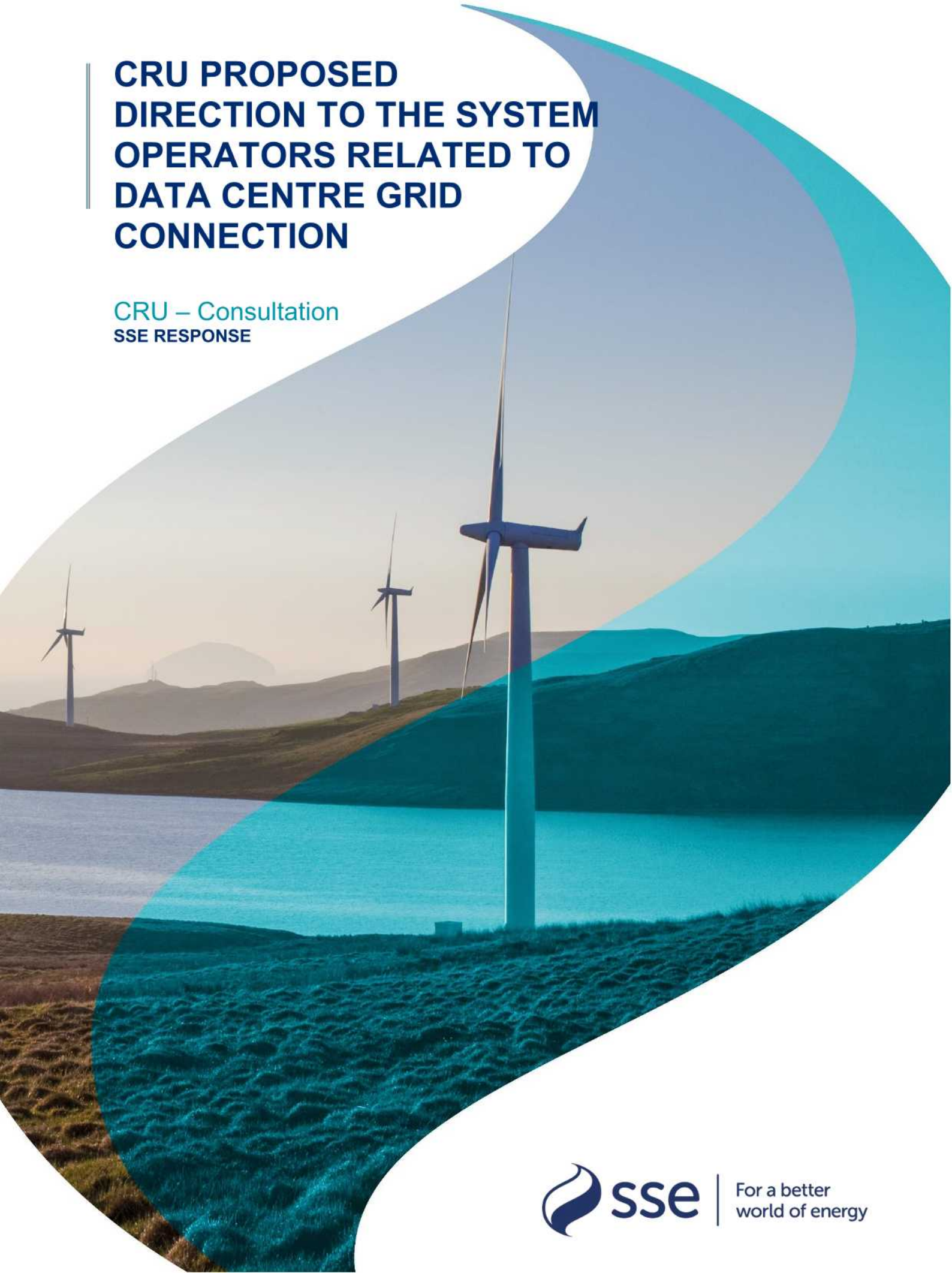
CRU PROPOSED DIRECTION TO THE SYSTEM OPERATORS RELATED TO DATA CENTRE GRID CONNECTION

CRU – Consultation

SSE RESPONSE



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INTRODUCTION

SSE welcomes the opportunity to comment on the CRU proposed Direction to the System Operators related to Data Centre grid connection (the consultation). For the avoidance of doubt, this is a non-confidential response.

WHO WE ARE

At SSE we're proud to make a difference. From small beginnings we've grown to become one of Ireland's largest energy providers, supplying green electricity and natural gas to over 700,000 homes and businesses on the island. We are driven by our purpose: to provide energy needed today while building a better world of energy for tomorrow.

Since entering the Irish energy market in 2008 we have invested significantly to grow our business here, with a total economic contribution of €3.8bn to Ireland's economy over the past five years. We own and operate 890MW of onshore wind capacity across the island. Our portfolio includes Ireland's largest onshore wind farm, the 174MW Galway Wind Park, which was jointly developed with Coillte. We also own and operate the Great Island Power Station, Ireland's newest gas station and a strategic asset for Ireland's security of electricity supply.

As a leading developer of offshore wind energy in Great Britain, we believe offshore wind has the potential to transform Ireland's response to climate change. SSE is currently progressing the development of a consented offshore windfarm off the coast of Co. Wicklow - Arklow Bank Wind Park Phase 2. We also have plans to progress projects at Braymore Point and in the Celtic Sea.

SSE are proud to be a Principal Partner for COP26 – the 26th United Nations Climate Change Conference of the Parties – where world leaders will be seeking a more ambitious climate change agreement. We look forward to continuing to work with the UK government and other stakeholders to support the delivery of a successful and impactful COP in Glasgow next November.

EXECUTIVE SUMMARY

SSE recognises the benefits that data centres can provide to the Irish economy. Cloud computing and the data centres that underpin that infrastructure has never been more important than supporting us through the COVID restriction of the last 18 months, facilitating the ability to work remotely.

Whilst data centres offer an opportunity for the electricity system in Ireland, this consultation is focusing on the challenges associated with facilitating these large energy users on the Irish system particularly in respect of the associated increase in electricity demand.

Further expansion of data centres presents challenges for the TSOs in ensuring security of supply. It is therefore reasonable that to ensure that connecting the continued expansion of data centres is planned for adequately.

The consultation outlines three potential options regarding processing of connection applications and subsequent connection of data centres at both transmission and distribution levels of the electricity grid.

1. Do nothing
2. Mortarium on Data Centre Connection
3. Connection Measures

As stated within the consultation, CRU's preferred approach is option 3 – implementing Connection Measures. SSE broadly supports option 3 with regards to greater flexibility, the use of dispatchable generation and the decentralisation of data centres. However, as will be further discussed, we reiterate the importance of maintaining and developing green energy in order to meet future targets. SSE considers that greater clarity is needed as how to EirGrid and CRU aims to balance these issues.

SSE RESPONSE

Within the consultation, CRU has stated it does not consider option 1 as an appropriate measure to implement, as it may lead to load shedding and consumers facing rolling blackouts. Similarly, CRU has ruled out option 2 at this time, instead aiming to implement a measure which promotes data centre flexibility. Therefore, SSEs response focusses solely on CRUs preferred option 3.

Based on option 3's proposals, we have provided comments under the following themes:

- Location
- Dispatchable generation
- Flexibility

Location

'EirGrid and ESB Networks shall prioritise processing of data centre connection applications based on - ***the location of each data centre applicant to whether they are within a constrained or unconstrained region of the electricity system.'***

EirGrid have been aware of the increased growth in demand associated with data centres for some years now. The annual generation capacity has highlighted the potential impact on demand growth in Ireland since 2016. However, given the current rapid expansion of data centres coupled with the current constraints on there is a real requirement to give serious consideration on how this expansion can be facilitated.

In order to facilitate a location-based approach, it would be prudent for EirGrid to improve the level of information and transparency relating to network constraints. This information will be very important to investors to ensure that data centres can determine locations based on transparent and predictable constraint areas.

By providing accurate data relating to network constraints, data centres could be incentivised to connect to the network where there are high levels of constraints. In the short-term this could alleviate some of the short-term network development pressures and could benefit our progress to meet Irelands 2030 targets.

Dispatchable generation

EirGrid and ESB Networks shall prioritise processing of data centre connection applications based on – ***the ability of each data centre applicant to bring onsite dispatchable generation (and/or storage) equal to or greater than their demand, which meets appropriate availability and other technical requirements as may be specified by EirGrid, in order to support security of supply;***

Further information is required to understand why the CRU do not feel that the capacity market will deliver the required generation to meet the security of supply needs. Further consideration should be given to how the capacity market can better serve the capacity needs of the market. Moreover, Industry would benefit from better market signals which could be implemented rather than direct intervention to meet the entry of data centres.

With respect to the proposal put forward by CRU, SSE seeks clarity on what the parameters are with regards to backup generation and its reliability. Further information would be required on what restrictions may be placed on that generation, and the surrounding assumptions. This includes estimated running hours, secondary fuel requirements or other services the backup generation may be required to provide. SSE would also like to understand how such a requirement could be developed so that it wouldn't adversely impact the 2030 Climate Action Plan (CAP) targets.

Flexibility

There are two points mentioned with reference to flexibility within the Consultation, listed here as:

EirGrid and ESB Networks shall prioritise processing of data centre connection applications based on - the ability of each data centre applicant to ***provide flexibility in their demand by reducing consumption when requested to do so by the TSO in times of system constraint through the use of dispatchable on-site generation (and/or storage) which meets appropriate availability and other technical requirements as may be specified by EirGrid, in order to support security of supply;***

and,

the ability of each data centre applicant to ***provide flexibility in their demand by reducing consumption when requested to do so by the TSO in times of system constraint, in order to support security of supply.***

SSE supports large energy users providing further flexibility. In particular data centres should be encouraged to provide flexibility through managing their on-site energy requirements.

It is SSE's view however that flexibility and demand response should not come at cost of increased emissions. As mentioned previously, clarity is needed in respect of the backup generation requirements that would be placed on data centres.

SSE is of the view that the introduction of hybrid connections as well as facilitating private wires could help facilitate locational based connections for data centres, therefore we would encourage CRU and EirGrid to progress the development of a hybrid connection policy as soon as possible.

Finally, the proposals set out here may help the TSO's manage constraints in the short term. However, this should not be considered as a substitute for developing the significant transmission system reinforcements that are required to meet the 2030 targets.