

Commission for Regulation of Utilities

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Dear Sir,

### **Celtic Interconnector - CRU Assessment of the Celtic Investment Request**

We welcome the opportunity to respond to the above consultation. As an independent developer of an interconnector we are familiar with the benefits further interconnection of the electricity networks can bring to member states to reduce prices to consumers, increase network resilience and to facilitate the integration of renewable sources of generation.

We address each of the questions set out in section 10 of the Consultation in turn:

*What are your views on project costs and benefits provided in the Celtic investment requests?*

We note that Celtic intends to operate at a maximum capacity of 700MW. This will require the Irish TSO to increase the largest single infeed (LSI) loss from the existing 500MW<sup>1</sup> level to 700MW and to secure additional reserve capacity. The investment request also anticipates that some Irish offshore wind farm projects will have capacity in excess of 500MW. EirGrid points to battery storage as an option to provide additional capacity to meet the higher infeed loss.

Greenlink is supportive of EirGrid's proposals to raise Ireland's LSI to 700MW as this will facilitate further renewable energy investments and a stimulus to investment of large offshore wind farms.

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<sup>1</sup> "TSOs explain that the Irish system requires operating reserves amounting to 75% of its LSI for system stability reasons. At present, this requirement (375MW) is met by dispatching generation through contracts. By increasing the LSI to 700MW, Celtic would drive the need for additional 150MW of operating reserve to meet the 525MW requirement (75% of 700MW)." – Celtic Interconnector cru Assessment of the Celtic Investment Request 20/12/2018

The Greenlink Interconnector project is slated for 500MW of delivered capacity by 2023. The configuration of Greenlink will have the capability to provide 700MW capacity for short periods of time of up to 2 hours continuous operation. This design flexibility could provide the additional capacity required to meet the 75% LSI at low cost to Irish consumers and reduce the requirement for large battery installations.

*What are your views on the CRU's assessment of the Celtic investment request?*

We broadly agree with CRU's assessment of the Celtic investment request. The approach adopted is consistent with the CRU's paper Policy for Electricity Interconnectors of 13 July 2018 and its approach to other Irish interconnectors.

We believe it would be useful for stakeholder to see the Celtic investment request stress tested with a "low case" scenario rather than relying on the "business as usual" TYNPD 2016 Vision 1, given that Ireland is likely to pick up a greater share of project costs under the CBCA.

*Do you have any additional evidence in this area that we should consider?*

Ramp rates play an important part in the operation and economics of interconnectors. CRU identified ramp rates as part of the criteria for a technical assessment of an interconnector project in its recent policy paper<sup>2</sup>. As part of its continuing analysis of PCI interconnectors the CRU may wish to consider the economic impact to Irish consumers of Ireland's relatively low ramp rates.

New technology adopted by the major providers of HVDC systems used by interconnectors allows for rapid ramping of power levels to grid networks and the fast switching of direction of power flows. This technical capability is above the current observed levels in Ireland and would allow Irish energy generators to increase their export of surplus power generation and potentially reduce curtailment costs to Irish consumers. Rapid ramping rates also increase an interconnector's ability to provide ancillary services including the reserve capacity (described above) to grid operators in times of system stress at low cost and therefore improve security of supply.

*What are your views on the initial high-level regulatory framework proposed by EirGrid?*

We note CRU's comments that the investment request is "very light on the details of the regulatory model that EirGrid is seeking for Celtic". However, as set out in the rest of the consultation paper, the economic impact of the Celtic project to Irish consumers would be significantly alleviated through the receipt of a material CEF grant for works.

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<sup>2</sup> CRU's paper Policy for Electricity Interconnectors of 13 July 2018

We would be pleased to discuss further any element of this letter if the CRU considers it helpful.

Yours sincerely,

