Dear Sir/ Madam

Thanks for the opportunity to respond to this consultation.

You ask:

1 Are there any other specific factors that the CRU should consider in assessing the Greenlink CBA?

2 Are there any other specific factors that the CRU should consider in assessing the Greenlink technical overview report?

No comment

3 Are there other specific factors that the CRU should consider in selecting the appropriate regulatory approach?

4 Is there any additional information the CRU should consider when determining whether the Greenlink interconnector is in the public interest or not?

In relation to 1; 3; and in particular 4.

(I have numbered sentences for ease of reference)

1. The new EU renewable energy targets of 30-32% by 2030 imply redoubled efforts to decarbonise all energy supplies in Ireland in a timely way.
2. The unrealised value in existing interconnections and interactions of the electricity system and heating oil systems should be assessed while committing funds to further international connections.
3. Unless the development of wind energy in particular is linked to the use of higher efficiency CCGT plant via interconnection, CO2 reduction targets will not be met economically.
4. Interconnectors are likely to be more fully used when an inherently variable resource is very large, so that a minimum level of more constant output is present more often. Unless the amount of wind energy usable in high wind conditions is expanded by identifying additional applications for it, the burden of financing interconnectors through 'bad' wind output years may fall on consumers.
5. Current cost allocations within electricity tariffs are preventing lower carbon and lower cost electricity being used to displace the use of high carbon heating oil and coal for domestic hot water heating.
6. Unlike for fossil gas, there are no lower cost 'interruptable' tariffs for additional electricity occassionally used to displace fossil fuels used for heating homes or hot water.
7. The cost of providing hot water from oil or coal systems is highest in summer, when excess renewable generation is likely to be available more often.
8. To meet CO2 reduction targets, to which exported wind energy does not contribute, the use of high carbon fuels in homes must be reduced.
9. Existing immersion heaters and hot water tanks represent a large paid-off energy storage resource without the cost, performance and environmental concerns of batteries.

10. Similarly, heat pumps and electric vehicles are expensive and imply huge investments in additional grid infrastructure, again paid for by consumers.
11. Financing the energy transition to low and zero carbon requires that low and no cost technical options are exploited first.
12. Heating water directly using immersion heaters provides a floor value for wind energy linked to the cost of heating hot water using heating oil.
13. Heating water directly using electricity can also add value by quickly using the additional grid capacity that must be added now for EVs and heat pumps, until they are fully deployed.
14. An advantage of using direct electric heating rather than heat pumps is that the amount of electricity required is 2 or 3 times more, providing demand to support ongoing investment in wind energy output capacity until EV battery and heat pump technologies become more efficient and economic.
15. Providing regulatory support for intermittent use of renewable or low cost electricity for heat can also increase the utilisation of the existing distribution grid for microgeneration, supporting rural areas.
16. Providing a fractional contribution to domestic heating and hot water using electricity also contributes to energy security, by extending the time that existing fuel stocks in oil tanks etc will last.
17. The intelligent controls needed to support this application of electricity can also add value in terms of protecting homes from frost and excessive condensation.
18. Providing domestic consumers with an additional clean and economic "fuel" that also reduces wind constraint is likely to reduce public resistance to the transition to low carbon.
19. The economics of the above arrangements, and their interactions with interconnector schemes, should be assessed, and any residual uncertainties resolved by public pilot installations at sufficient scale.
20. Pilots should include the logging of heating demand data to further inform a transition to low carbon which should include the installation of heat pumps for larger heat users.
21. Correlations of wind output and heating demands increased by draughts should be noted, as these signify that wind generation used for electric space heating does not require as much standby generation.

I am responding in a personal capacity.

Yours faithfully