

DATA CENTRES

Unique CHP power for Irish data centre



Echelon Data Centres has plans to make biogas at its County Wicklow, Ireland campus. The Irish data centre firm will use biogas for backup power at its Echelon DUB20 facility. The Irish data centre owner / operator and the renewable power company will produce biogas energy on the Echelon DUB20 data centre site in Arklow, County Wicklow, which Echelon will use for backup power. Biocore - supplying the technology - specialises in producing methane gas through the anaerobic digestion process.



Echelon Data Centres and Irish renewables company Biocore Environmental have agreed to co-locate a biogas facility in County Wicklow, Ireland.

Biocore specialises in producing methane gas through anaerobic digestion, which can be used to power combined heat and power (CHP) generators producing electricity, or processed further and supplied directly to the national gas network.

Echelon, which operates six sites in Ireland and the UK with up to 500 MW of capacity, is committed to sustainable operations, one element of which is exploring ways in which its facilities can be powered cleanly and sustainably.

"The inconvenient truth is that data centres are huge consumers of power," comments Niall Molloy, CEO of Echelon, "but equally inconvenient is the fact that without them we would not be enjoying – relying on – the benefits of 5G, e-commerce, the Internet of

Things, artificial intelligence, and virtual reality. Given, therefore, that data centres are here to stay, it's up to us – the facilities' owners and operators – to make provision to power them sustainably, cleanly, and with the least impact on the grid.

He explains: "Our agreement with Biocore, which would see a renewable biogas facility co-located with a 100 MW data centre on our DUB20 site is a landmark initiative which could assist in providing a renewable backup power solution for the facility, while also making productive use of organic material and returning value in terms of fertiliser stock for Irish agriculture."

Declan Murray, managing director of Biocore, welcomed the agreement with Echelon, highlighting the mostly untapped potential in biogas production, both as a sustainable method of producing fuel and as a way of solving problems associated with the recovery of biodegradable material. Biogas production is a virtuous cycle – we

"Biogas production is a virtuous circle – we take organic materials which can, themselves, become eco-pollutants, and transform them into gas either for supply to the gas network, or for use in generating power."

- Declan Murray, Biocore



take organic materials which can, by themselves, become environmental pollutants, and transform them into gas either for supply to the gas network or for use in generating power," said Murray.

"The residue from the production process is dried and re-supplied to the farms from which much of our organic feedstock can be sourced. This residue makes an excellent fertiliser – and means that none of the organic material goes to waste.

"Our relationship with Echelon will be a symbiotic one – we can use the heat that is generated by the data centre to maintain our biogas production process, and the biogas produced can assist the data centre in terms of producing power for storage in backup battery arrays.

"One of the byproducts of the gas cleaning process – before it is introduced to the gas network, for supply to homes and businesses – is CO₂. This is an effective fertiliser for plant products cultivated undercover and, of course, the Echelon DUB20 site has the space to host such enterprises in the future."

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