

Batteries

3000

widely distributed
grid-connected sites.

Whilst the IOC will help NI Water, and by extension Northern Ireland, manage its demand for electricity, batteries could be equally vital in helping support supply at periods when the wind isn't blowing and the sun isn't shining - the key variability in a Renewable Energy System.

Batteries can store renewable electricity at times when demand is low and then release it when it is high, but to be effective that may require consideration of an enterprise battery solution for Northern Ireland - a solution which could help balance supply and demand at a local and regional level.

That, in turn, may need multiple sites on which to install the batteries, the access to wind or solar energy, and the cyber secure connections to link the batteries in each location to the grid.

NI Water already owns some 3,000 sites spread across Northern Ireland with connections which meet the highest technical requirements. It also has, as it is required to for resilience in operating critical national infrastructure, a fleet of 250 diesel standby generators which will need to decarbonise to align with future emission regulations.

There seems, therefore, an obvious synergy between NI Water's assets and the role an enterprise battery solution could play in helping to balance demand and supply in the renewable energy era.

Such an alignment would cut costs by doing away with the need to buy new sites for the batteries and construct the necessary grid

connections. It would seem likely that any alternative solution would have to meet each of those substantial costs so adding to the overall price of supplying electricity and water in Northern Ireland.

Avoiding duplication of effort and costs, therefore, has clear advantages for Northern Ireland as a whole, but it would need to be delivered, and funded, as a joint enterprise across government, the utilities and the regulator.



Opportunity to lower costs for water and electricity customers.



Tentative steps in that direction have begun. To show the potential of such an approach NI Water plans to install 6 MWh of batteries as part of our PC21 work at sites including Dunore near Antrim. This will provide greater resilience for both NI Water and the wider network, as well as generating income which can be used to offset other costs.

NI Water and NIE Networks (NIEN) have also begun to map how their physical assets align to understand the full potential and feasibility of such a joint approach.