

Oxygen

The results of the 10 kW electrolyser pilot just completed at Kinnegar WwTW showed how the use of oxygen could transform the operation of some of our major wastewater treatment works.

These conclusions will be further tested using a larger scale 1 MW Demonstrator model which will arrive by the end of 2021.

Already it is clear, however, that oxygen - along with other measures - can be used to improve the aeration process by 25% and, therefore, increase the efficiency and capacity of existing wastewater treatment plants, potentially creating more headroom for local development.

A legacy of underinvestment in our wastewater treatment works has meant that the ability of too many of our towns and cities to grow has been constrained meaning they cannot reach their natural potential.

Under current plans, it will take 18 years to address the issue through traditional means, even with elevated levels of funding. Using oxygen produced by electrolysers at a local level, along with other measures, offers the possibility of a different solution.

Clearly much will depend on the outcome of the Belfast Demonstrator, but there is already enough evidence to suggest that a network of electrolysers, and the oxygen they produce, could be part of the answer to this long-standing problem in Northern Ireland.

