
First UK Deployment of Pioneering Net Zero LOOP Technology in Scotland

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World-leading decarbonisation technology will be deployed in the UK for the first time as part of a collaboration between climate tech company Levidian and solutions business Eco Group.

This agreement marks multiple firsts. [Eco Group's](#) deployment in the south of Scotland will be the first remote implementation of the pioneering LOOP technology in the [UK](#). It is also a world-first deployment of a LOOP system with fully integrated hydrogen separation.

The LOOP device uses a patented low temperature, low pressure process to crack methane into its constituent atoms, hydrogen and carbon, without the need for catalysts or additives – decarbonising methane-rich gas to deliver hydrogen and graphene on site.

Following the initial deployment of the LOOP10 system at Eco's HQ at Annan, Dumfries and Galloway, the firm has committed to working with clients and partners to deploy more than 60 larger LOOP1000 units across Scotland and beyond over the next five years. This will create decentralised hydrogen hubs to support industrial decarbonisation, enabling reduction of greenhouse gas emissions and creating products essential to net zero ambitions. A single LOOP1000 reduces CO2 equivalent (CO2e) by approximately 2,400 tonnes per year.

The hydrogen produced by the first LOOP10 demonstration unit at Eco will be used for R&D projects for hydrogen technology innovation across all sectors.

Eco Group will also be a distributor of graphene, focusing on R&D applications for the use of graphene as an advanced additive in the aerospace, automotive, 3D printing, textiles, and energy sectors.

Business and community development agency, South of Scotland Enterprise (SOSE), has engaged with Eco Group for a considerable period, providing guidance and now a £331,000 grant to support their innovative project.

Dr Martin Valenti, Director of Net Zero at SOSE

“Climate change is at the forefront of all our minds, especially during COP27, which is why SOSE is driving and delivering a Just Transition to Net Zero in the south of Scotland.

“A key aim of our Net Zero work is engaging with businesses which are delivering innovative, world class solutions. Eco Group’s work with [Levidian](#) is a fantastic example of this.

“SOSE is supporting the creation and live testing of new technology with Eco Group, which focuses on taking natural gas and methane and breaking it down to provide hydrogen and graphene.

“This could then be used for low energy solutions to heat buildings and for battery storage, which would be a significant step forward on our collective journey to Net Zero.”

Eddie Black MD of Eco Group

“We are delighted to enter into our new partnership with Levidian and deploy this pioneering technology in the south of Scotland.

“Our partnership has the potential to transform our region and to lead in decarbonisation. This technology will not only create green jobs, it will also demonstrate to industry leaders the opportunities to decarbonise their organisations and sectors while leading the way on innovation, in addition to making positive impacts on net zero aspirations through carbon reduction, new technology deployment and more sustainable materials.

“Eco’s ambition is for Scotland to be positioned as a global leader for green technology innovation.”

Levidian CEO John Hartley

“Levidian’s agreement with Eco Group will see our first LOOP with fully integrated hydrogen separation deployed in Scotland.

“LOOP will be a powerful tool for industrial decarbonisation and fits in well with Scotland’s green ambitions – we’re looking forward to working with Eco to deploy LOOPS and integrate graphene to help us drive towards net zero.”

Read the [original article](#) on Levidian.