

PRESS RELEASE

For immediate release

March 2020

PLANS FOR UK FIRST PLASTICS TO HYDROGEN FACILITY AT PROTOS APPROVED

Peel Environmental – part of Peel L&P – and Waste2Tricity have received unanimous planning consent from Cheshire West & Chester Council for the UK's first waste plastic to hydrogen facility at the 54-hectare Protos site near Ellesmere Port.

The £7m development will see 14 full time permanent jobs created at Protos with over 100 jobs created in the North West during fabrication and construction.

It will transform how plastic waste is dealt with in the region, treating up to 35 tonnes of unrecyclable plastics a day and using it to create a local source of hydrogen. This hydrogen could be used as a clean fuel for buses, Heavy Goods Vehicles (HGVs) and cars, helping to reduce air pollution and improve air quality on local roads.

The facility would also generate electricity which could be provided to commercial users via a microgrid at Protos, helping to reduce reliance on fossil fuels. Peel Environmental is looking at developing a closed loop solution at Protos where plastics are recycled on-site with the leftover material used to create hydrogen.

It will be the first plant in the UK to utilise pioneering DMG® (Distributed Modular Generation) technology developed by PowerHouse Energy Group (AIM:PHE) at Thornton Science Park adjacent to Protos.

Myles Kitcher, Managing Director at Peel Environmental – part of Peel L&P – said:

“The creation of this UK-first facility makes great strides to solve two important issues; the huge amount of waste plastic produced, and the over-reliance on fossil fuels for energy. The technology has been proven at Thornton Science Park and will now be commercialised at Protos, before being rolled out across the UK. This is hugely significant for Cheshire and the wider region, demonstrating how we’re rising to the challenge of being the UK’s first low carbon industrial cluster and setting a standard for others to follow.”

John Hall, Waste2Tricity said:

“Securing consent for our first facility in the UK is a huge step forward and we’re delighted that Cheshire West & Chester Council has got behind the project. Working with Peel Environmental, we have plans to roll out the technology across the UK.”

David Ryan, CEO of PowerHouse Energy Group (AIM:PHE), said:

“The decision represents a key milestone for PowerHouse Energy after developing the technology alongside Protos at Thornton Science Park. We now look forward to working alongside Peel Environmental to complete funding and deliver the first commercial application of our DMG technology, creating hydrogen from waste plastics and helping to kick start the hydrogen revolution in the North West.”

Following planning consent a start on site is expected in Autumn 2020 with the facility due to be operational in 2021. Last year it was announced that Peel Environmental had signed a Collaboration Agreement with Waste2Tricity and PowerHouse Energy to develop a total of 11 waste plastic to hydrogen facilities across the UK, representing an investment of £130 million.

The Protos strategic energy hub sits within the Energy Innovation District (EID), which is spearheaded by the Cheshire Energy Hub and brings together energy users, network owners, innovators and partners working alongside Cheshire & Warrington LEP, Cheshire West and Chester Council and the University of Chester. The EID is looking to develop a local, smart energy microgrid which a recent [report](#) demonstrated could lead to energy cost savings of up to 25% and reduction of greenhouse gas emissions by 34%.

Ged Barlow, Chair of the Cheshire Energy Hub:

“The UK is going to require plenty of innovation if it is to meet challenging net zero targets. Projects like this show how in the North West we’re leading the way and it’s great to see yet another UK first project taking place within the Energy Innovation District. The technology is truly innovative and forms part of our plans to deliver local low carbon energy sources.”

The project forms part of the North West’s bid to become the UK’s first low carbon cluster by 2030. The North West Energy and Hydrogen Cluster is being led by the North West Business Leadership Team, with support from Greater Manchester and Liverpool City Region Mayors and the Cheshire & Warrington LEP. In competition with other regions – such as Humber and Teeside – the Cluster could deliver 33,000 jobs, over £4bn investment and save 10 million tonnes of carbon per year.

It is also part of Peel L&P’s wider sustainability commitments and contribution to net zero emissions in the UK. The company has committed to eliminating all single-use plastics across the business within the next five years. It was also recently announced that Peel L&P is the first property company to achieve Net Zero Carbon status using the UK Green Building Council’s 2019 definition for buildings in the UK.

Notes to Editors

About Peel Environmental and Protos

Peel Environmental, part of Peel L&P, owns and develops waste infrastructure projects. It has achieved consent for a range of energy infrastructure schemes including a 49MW Energy from Waste plant at Protos in Cheshire, 29MW Energy from Waste plant at Kellingley, North Yorkshire, 250,000tpa AD and MRF in Glasgow; and a 20MW Energy Centre at Houghton Main, Barnsley. Peel works with investors, waste management companies, technology providers and contractors to secure a deliverable and fundable business model for each project.

www.peelenvironmental.co.uk

Peel Environmental brought forward and consented the Protos development, previously known as Ince Resource Recovery Park. The 54ha (134 acres) development site has full outline planning consent and part detailed planning consent for general manufacturing and distribution uses (B1, B2 & B8), as well as a biomass facility and an Energy from Waste facility.

www.protos.co.uk [@ThisIsProtos](#)

Protos sits within the Energy Innovation District (EID) which brings together energy users, network owners, innovators and partners working alongside Cheshire & Warrington LEP, Cheshire West and Chester Council and the University of Chester. With the objective of driving down the cost of clean energy the EID is an opportunity to deliver a new decarbonised energy system for the North West of England, meeting the Government's Clean Growth agenda while boosting economic growth and investment.

www.energyinnovationdistrict.com

About Peel L&P – realising possibility.

We are an ambitious regeneration business with generations of history, heritage and expertise in our DNA. First established in 1971, Peel L&P is now responsible for some of the most transformational development projects in the UK today.

Owning and managing 12 million sq ft of property and 20,000 acres of land and water, our holdings are concentrated in the north west of England but we also own and manage significant assets throughout the UK with a total portfolio value of £2.6 billion.

As a part of the Peel Group; we are integral to a business that strives to make a positive impact on people's lives. Our legacy matters. We take great pride in the outcomes we achieve, the people we work with, the way we go about our business and the transformational projects we deliver.

Our specialist teams have a proven track record in delivering high-quality, legacy projects across land, property, water and airspace. This includes airports, hotels, waterways, media hubs, event spaces, leisure facilities, retail, workspaces, residential development, industrial & logistical space, public realm, historic gardens and the renewable energy sector.

Peel L&P is an agile and ambitious business with a legacy of success for a long-term, sustainable future. We see possibility. We deliver transformation.

More information at www.peellandp.co.uk or follow @PeelLandP on Twitter.

About Waste2Tricity

Established in 2008, Waste2Tricity (W2T) is a project developer and operator in the energy-from-waste sector. Its mission is to treat plastic waste as a fuel, preventing further contamination of the world's oceans and environment whilst at the same time creating clean energy and hydrogen.

W2T has an exclusive geographic license with PowerHouse Energy Group (AIM PHE), an AIM listed business that has developed a Distributed Modular Generation system that is able to convert unrecyclable plastic into high-grade hydrogen for use as a transport fuel whilst also generating power for export by private wire or to the grid.

The Protos development is W2T's first commercial project, with the company looking at a pipeline of future projects across the UK. The next stage of development will focus on switching the technology to allow it to produce hydrogen for use in a distributed hydrogen network as well as syngas production for generating electricity.

www.waste2tricity.com

About Powerhouse Energy Group (AIM:PHE)

PowerHouse Energy Group (AIM:PHE) has developed a proprietary process technology - DMG® - which can utilise waste plastic, end-of-life-tyres, and other waste streams to efficiently and economically convert them into syngas from which valuable products such as chemical precursors, hydrogen, electricity and other industrial products may be derived. The PowerHouse technology is one of the world's first proven, modular, hydrogen from waste (HfW) process.

The PowerHouse DMG® process can generate up to 2 tonnes of road-fuel quality H2, and more than 58MW/h of exportable electricity per day. The PowerHouse process produces low levels of safe residues and requires a small operating footprint, making it suitable for deployment at enterprise and community level.

PowerHouse Energy Group (AIM:PHE) is quoted on the London Stock Exchange's AIM Market under the ticker: PHE and is incorporated in the United Kingdom.

www.powerhouseenergy.net

For more information on Peel Environmental or Protos please contact:

Rebecca Eatwell
07827 353113



rebecca@fontcomms.com

For more information on Waste2Tricity please contact:

Becca Smith

07766522305

becca@sistersmithpr.com