



18 September 2025

The information contained within this announcement is deemed to constitute inside information as stipulated under the retained EU law version of the Market Abuse Regulation (EU) No. 596/2014 (the "UK MAR") which is part of UK law by virtue of the European Union (Withdrawal) Act 2018. The information is disclosed in accordance with the Company's obligations under Article 17 of the UK MAR. Upon the publication of this announcement, this inside information is now considered to be in the public domain.

**Powerhouse Energy Group plc
("Powerhouse" or the "Company")**

Feedstock Testing Unit update

Powerhouse Energy Group plc (AIM: PHE), a company pioneering integrated technology that converts non-recyclable waste into low carbon energy with a revenue generating engineering consulting division ("Engsolve"), is pleased to provide the following update on its Feedstock Testing Unit ("FTU"). In the six months since the Company held its Capital Markets Day, the PHE team has been actively testing, validating, and refining the DMG system. Initial trials, using raw plastics, have delivered excellent results that were consistent (and in certain cases, better) with both our model predictions and previous small-scale tests.

Testing has now progressed to mixed plastics in raw and "real" waste forms which have also aligned well with our models and, encouragingly, showed slightly higher hydrogen content in the resulting syngas than anticipated. The next phase of testing involved improving the efficiency of the downstream systems and optimising the DMG temperature profile.

Following these tests, PHE has installed a custom made and designed internal plate system within the furnace, developed using Computational fluid dynamics (CFD) modelling work carried out in collaboration with Manchester University. Upon installation, and repeating the earlier tests, the Company recorded improved heat retention within the kiln and a significant reduction in residue carryover to the gas clean-up system. This design will now be implemented into all future DMG units.

With the design enhancements, the R&D team has also tested solid recovered fuel (SRF) and mixed plastics (mixed in accordance with the specification provided for the National Hydrogen Australian project). The SRF results were as expected, given this type of feedstock lends itself more towards producing a syngas to power, or a precursor syngas product rather than a for a Hydrogen project. The mixed plastics however, provided a repeatable Hydrogen content in the syngas at the top end of the model prediction. This not only reinforces our confidence in the currently published figures, but also indicates that, with the appropriate feedstock mix, PHE has the potential to exceed them.

In this regard, as an example, PHE has previously stated that from a 40 Tonnes per Day (TPD) mixed plastic input that the DMG would produce approx. 2.5 to 3.0 TPD of Hydrogen. The Company is now confident that between 3.0 and 3.5 TPD can be produced at 99.999% purity with a higher output possible if producing to the lower purity ISO road transport standard.

While the testing to date has been extremely positive, the team continues to optimise the commercial system design through ongoing FTU testing. This includes running various "real-life" waste streams for potential clients and experimenting with different operating conditions to tailor syngas composition for applications beyond hydrogen production. In parallel, the testing is informing efforts to valorise the residue stream, further enhancing the overall commercial viability of the DMG offering.

Paul Emmitt, Chief Executive Officer of PHE, commented:

"The progress we've made with our Feedstock Testing Unit over the past six months is a testament to the ingenuity and dedication of the Powerhouse team. The validation of our DMG system with both native and mixed waste plastics-especially the higher-than-expected hydrogen yields-reinforces our confidence in the technology and its commercial potential. The design enhancements, developed in collaboration with Manchester University, mark a significant step forward in efficiency and scalability. As we continue to optimise the system and explore diverse feedstocks, we are not only advancing our hydrogen production capabilities but also unlocking new pathways for sustainable energy and waste valorisation."

-ENDS-

For more information, contact:

Powerhouse Energy Group Plc

Paul Emmitt, CEO
Ben Brier, CFO

+44 (0) 203 368 6399

Strand Hanson Limited (Nominated & Financial Adviser)

Ritchie Balmer / Rob Patrick / James Harris

+44 (0) 207 409 3494

SP Angel Corporate Finance LLP (Broker)

Stuart Gledhill / Adam Cowl

+44 (0) 20 3470 0470

Tavistock (Financial PR)

Simon Hudson / Nick Elwes

+44 (0) 207 920 3150

powerhouse@tavistock.co.uk

About Powerhouse Energy Group Plc

Powerhouse Energy has developed a process technology which can utilise waste plastic, end-of-life-tyres, and other waste streams to convert them efficiently and economically into syngas from which valuable products such as chemical precursors, hydrogen, electricity, heat and other industrial products may be derived. PHE's process produces low levels of safe residues and requires a small operating footprint, making it suitable for deployment at enterprise and community level.

PHE also incorporates Engsolve Ltd, which is a revenue generating business offering Engineering Services across all sectors, with speciality services in the development of new technologies and clean energy.

For more information see www.phegroup.com

This information is provided by RNS, the news service of the London Stock Exchange. RNS is approved by the Financial Conduct Authority to act as a Primary Information Provider in the United Kingdom. Terms and conditions relating to the use and distribution of this information may apply. For further information, please contact rns@seg.com or visit www.rns.com.

RNS may use your IP address to confirm compliance with the terms and conditions, to analyse how you engage with the information contained in this communication, and to share such analysis on an anonymised basis with others as part of our commercial services. For further information about how RNS and the London Stock Exchange use the personal data you provide us, please see our [Privacy Policy](#).

END

MSCEASNXFDDSEFA