

Stock Data

Share Price:	2.23p
Market Cap.:	£88.25m
Shares in issue:	3,957.4m
52 week high/low:	6.90p/1.50p

Company Profile

Sector:	Alternative Energy
Ticker:	PHE
Exchange:	AIM

Activities

Powerhouse Energy Group plc ('the Group', 'Powerhouse' or '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.

[www.powerhouseenergy.net/](http://www.powerhouseenergy.net/)

5-year share price performance



Source: [LSE](#)

Past performance is not an indication of future performance

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TPI acts as joint broker to Powerhouse Energy Group plc.

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# Powerhouse Energy Group plc

Further to its announcement of 11 May 2022, Powerhouse has today agreed a heads-of-terms ('HoT') with Hydrogen Utopia International plc (AQSE: HUI, 'HUI'), the Group's independent agent for its Distributed Modular Gasification ('DMG®') technology, for the joint development of a waste plastic to hydrogen facility at Lanespark in Co. Tipperary, Ireland ('the Lanespark Project'). Subject to obtaining acceptable title to the proposed site and completion of relevant project documentation, PHE and HUI have agreed to establish an equally-owned joint venture vehicle ('the JV'), which shares all development costs on a 50:50 basis. Located in a region that offers supply of feedstock along with opportunity to secure both offtake agreements and grants, this pioneering European facility has potential to become a global showcase for DMG® technology. Given that the first commercial scale application of DMG®, which is being implemented with Peel NRE Limited (the leading regeneration and clean energy specialist) at the Protos Energy Park in Cheshire, UK, is still in development stage, and that Powerhouse's new leadership has signalled that it aspires to generate a quality of choice on projects, today's news provides much desired diversification by geography and customer in response to growing demands from international governments/companies for an effective means of waste elimination which can also play an active role in decarbonising their economies. With £9.6m of cash available as of 31 December 2021 (2020: £3.4m), the Group has sufficient resources to support implementation of more than one DMG® application in the coming months, the success of which might then be expected to move the Group's activity levels into a much higher gear.

## Terms of the proposed JV

Under the HoT, Powerhouse has agreed to pay HUI a non-returnable cash payment of £400,000, while also advancing to a loan of £600,000 in recognition of HUI's contribution to the Lanespark Project through its technological approach to the proposed facility, along with identification of a suitable site and advanced negotiations with both the property's current leaseholder and its freeholder. The loan will be available for drawdown in whole or in part upon satisfaction of the Title Condition and the completion of project documentation. This will include, amongst other things, both the development and shareholder agreements. It is proposed to have a term of up to two years, with redemption in full possible after one or two years through bullet repayments of £660,000 or £750,000, respectively, in each case reflecting outstanding capital plus rolled-up interest. It is also anticipated that security will be offered through a charge over HUI's participation in the JV.

In recognition of the fact that the Lanespark Project will supersede any pre-existing arrangements between HUI and PHE, the parties have agreed that on entering into the definitive agreements, the existing exclusivity agreement between PHE and HUI's UK operating subsidiary, as well as the related existing collaboration agreement, will each be mutually terminated without any further obligation on either party.

## Global Innovation and Technology Centre

As reported by Powerhouse on 24 May 2022, the Group has deployed its own capital to invest up to £1.3 million in the supply, installation, and commissioning of equipment, which has a pre-commercial scale thermal gasification technology at its centre. This will form the nucleus of its Global Innovation and Technology Centre.

This is designed to achieve several outcomes. Firstly, it will support a doubling down on the development of the readiness of the Group's leading technologies, providing a means of demonstrating and delivering process capability. It is also intended to lessen any impact on growth from any delays it may experience on reaching financial close on commercial sites.

Importantly in this respect, as well as supporting the development and further proving Powerhouse's proposition and technologies, the Centre will be used both as a reference site and a marketing facility, thereby serving as a focal point to grow the pipeline with prospective partners and clients, while also demonstrating that larger scale modular DMG<sup>®</sup> facilities can perform in accordance with their specification.

### **Potential for positive returns in just two years**

Today's news represents an important strategic step forward for PHE. Not only does it provide a new project for the Group's DMG<sup>®</sup> technology, but it also represents its first major deployment outside the UK and one in which it is a joint owner of the special purpose vehicle that will develop and construct the facility. This aligns the interests of both HUI and PHE in its success.

PHE's full-year results to end-December 2021 that were published on 29 June 2022, confirmed that the Group remains on a highly secure financial footing, with £9.6m of available cash being sufficient to reassure shareholders it can support implementation of more than one commercial scale DMG<sup>®</sup> development project along with its subsequent roll-out while also facilitating a planned overseas marketing/licensing drive, without needing to call for additional resources.

The adoption of a low cost, licence fee-based business model leads TPI to believe that Powerhouse could potentially achieve cashflow breakeven or better, based simply on the commissioning of just three Protos-sized projects (each targeting production of, say, 3.8MWe on site and exporting 3.4MWe electricity when in power-only operation and up to 2 tonnes of hydrogen/day when in combined operation). Considering the lengthy existing project pipeline already under consideration by Peel and HUI, together with further fees from expected feedstock testing and site-specific engineering work, TPI considers the Group's capital-light structure offers potential to start generating returns for shareholders within the next two years. This projection has been based on the expectation that HUI will be able to contribute to the Group having three fully operational sites plus any further pipeline projects converted during that period. In tandem with this, Powerhouse is also expected to have further progressed its planned European development, securing agreement with selected well-financed partners in the process. On this basis, TPI considers Powerhouse could possibly generate its first meaningful profits by the end of 2024.

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