

Stock Data

Share Price:	3.78p
Market Cap.:	£149.1m
Shares in issue:	3,943.4m
52 week high/low:	11.40/2.25

Company Profile

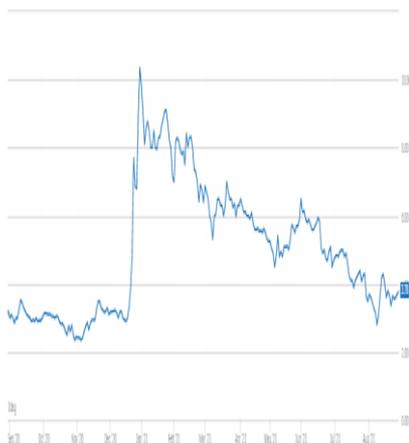
Sector:	Alternative Energy
Ticker:	PHE
Exchange:	AIM

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/)

1 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

Powerhouse has signed a binding exclusivity agreement (the 'PGH Exclusivity Agreement') for deployment of its technology in Poland, Greece and Hungary with its independent agent, Hydrogen Utopia International plc ('HUI'). This important step follows the non-legally binding heads of terms ('HoT') reached with HUI that were announced for Poland on 12 November 2020, followed by Greece and Hungary on 10 May 2021. It anticipates significant opportunity for deployment of DMG® technology going forward. More information about HUI's corporate mission to create such a project pipeline on the European Continent through its securing of funding from and partnering with states, regional authorities and the private sector in targeted regions, potentially also including various partners with whom it will be working, is expected to be published in due course. With Group operations having performed strongly during the first half of 2021 despite the impact of the lockdown, and with Peel's financial closure of the Protos project anticipated during Q4 2021, execution of the technology's first application might be expected to commence before year end with activity levels moving into a much higher gear thereafter.

## International deployment of DMG® technology

HUI has become an international champion of Powerhouse's technology. While initially driving its rollout across Poland, Greece and Hungary, its longer-term ambition is to market and distribute across the whole European Continent.

Following its initial payment of deposits totalling €125,000, the PGH Exclusivity Agreement requires HUI to pay Powerhouse a further €325,000 by the end of 2021 in anticipation of it being formally granted an intellectual property licence for the DMG® technology, with a further €300,000 to be paid 12 months later. In addition to this Powerhouse will, of course, continue to receive an annual licence fee of £500,000 in respect of each DMG® plant project which becomes operational in any location in the world. As such, the Group's worldwide rights to ongoing licensing fees for the DMG® technology are unaffected by the PGH Exclusivity Agreement.

## Powerhouse is well-resourced to fund anticipated uptick in activity

The raising of £10 million (gross) through an equity placing in January 2021 enabled Powerhouse to provide the Protos SPV with a substantial short-term loan to help expedite the project by securing long lead time equipment and accelerating design services. It is now also providing facility to support the technology's planned international roll-out, initially through the PGH Exclusivity Agreement that has been announced today.

Against this, it should also be recalled that on 9 September 2020, Peel Holdings (IoM) Limited was granted warrants to acquire new shares equating to 10% of the current issued capital of Powerhouse, that will be triggered by announcement of the financial closing of the Protos project (which TPI now expects to take place early in Q4 2021). In addition to existing resources, the exercise of the warrants would bring a further £10.2 million of cash into Powerhouse, placing it on a secure financial footing for its UK operations while also facilitating the deployment of its technology to international customers. Under the terms of its exclusivity option, Peel NRE will also be obliged to pay the further sum of £500,000 within six months of the financial close for exclusive rights to the DMG technology in the UK while assuming responsibility for leading the

development and funding strategy for all future UK projects. In expectation of both the warrant exercise and option take-up in the relatively near term the Group, whose capital light model based exclusively on licencing rather than project commissioning, will be left with a strong balance sheet that TPI considers is unlikely to call on shareholders for additional funding in the foreseeable future.

With Protos presently looking set to be commissioned and operational by early in 2023, activity levels appear set to rise sharply in the remaining months of this year and remain so for the whole of next. Anticipating this, Peel has already announced a second UK facility at the Rothesay Dock on the north bank of the River Clyde, West Dunbartonshire, while HUI also targets completion of its own build on a similar timeframe, the Group now appears poised for substantial progress as its modular technology commences formal roll-out into full commercial operations. Given that further global licensing agreements are expected to follow in relatively short order, with most of the capital cost for deployment being borne by development partners and those licensed to use DMG® technology, Powerhouse can expect to secure rapid simultaneous growth across multiple markets without further recourse to shareholders.

### Potential for positive returns in just two years

The fund raising completed earlier this year, along with inflow from Peel following anticipated financial closure of the Protos project, has substantially lowered the site's residual commissioning risk. Indeed, Powerhouse now appears to be on a sufficiently secure financial footing to reassure shareholders it will not be calling for additional cash resources in the foreseeable future. Having already put a loan in place to help expedite the project, the Group has access to all foreseeable working capital/corporate needs in support of both Peel's post-COVID UK roll-out while also facilitating its planned overseas marketing/licensing drive as has been detailed today. 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, together with further fees from expected feedstock testing and site-specific engineering work, TPI considers that full integration of Waste2Tricity Limited following its acquisition at the end of June 2020 might enable the capital-light Group to start generating returns for shareholders within the next two years, based on its expectation that HUI will also contribute to the Group having three fully operational sites plus a further four under construction by that time. During this period, Powerhouse is also expected to have further progressed its planned international licensing proposals, securing agreement with selected, well-financed partners based on exclusivity terms similarly to those it has already negotiated with Peel and HUI. On this basis, TPI considers Powerhouse could possibly generate its first meaningful profits before end-2023.

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