

Stock Data

Share Price: 3.25p
Market Cap.: £120.7m
Shares in issue: 3,715m

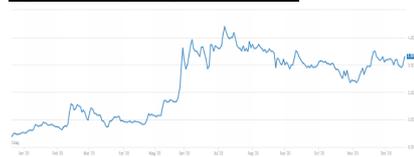
Company Profile

Sector: Alternative Energy
Ticker: PHE
Exchange: AIM

Activities

PowerHouse Energy Group plc ('the Company', '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 from which valuable products, such as chemical precursors, hydrogen, electricity and other industrial products may be derived. Its technology is one of the world's first proven, modular, hydrogen from waste (HfW) processes.

1 year share price performance



Source: [LSE](#)

Past performance is not an indication of future performance.

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PowerHouse Energy Group plc

Powerhouse has provided an update covering the Group's operational progress following its AGM of [30 September 2020](#). It confirmed that [Peel L&P](#) ('Peel') has commenced site preparation for the building of the first commercial scale [DMG® waste plastic to hydrogen technology](#) plant at the [54-acre Protos site near Ellesmere Port in Cheshire](#) ('Protos'), which is expected to serve as a model for a subsequent roll out both in the UK and worldwide. This phase includes the initial site ground works, the preparation of access roads/laydown areas and utility service installation on Protos Plot 10b where the DMG® plant will be installed. Despite the inevitable planning drag due to COVID-19, TPI nevertheless expects Peel to finalise its project financing and award various construction, delivery, operations and maintenance contracts and tenders during Q1 2021. This will represent another important step by Powerhouse in support of the UK Government's recent [ten-point plan](#) for a green industrial revolution, which highlighted the role of hydrogen production as part of its ambition to reach net zero and reduce carbon emissions.

Post FEED engineering definition

While site work remains ongoing, contract and post-FEED engineering definition steps are proceeding as follows:

- Negotiations with potential construction delivery contractors;
- The Hazard and Operability Analysis ('HAZOP') study of the DMG® process for the Protos application has been successfully completed by a joint team comprising Powerhouse, Peel and the engineering consultants whose findings will be used as the basis for safety system procurement and operational safety systems;
- Provision of operational definition material for a future Operations & Maintenance contract tender; and
- Further refinement to the construction measures to be applied in line with modular build strategy.

In line with the corporate development plans described in its strategic report, Powerhouse has also recruited additional experienced operational and technical staff over the past quarter, in order to build-out the necessary engineering and support team based at the Thornton research and development centre, supporting further technical advancements, Protos project activities and new business development.

Furthermore, Powerhouse has developed an expanded the DMG® technology solution in order to facilitate export of larger volumes hydrogen, broadening the scope for Peel to engage with smaller fleet consumers of hydrogen who require supply to their own or third-party off-site locations. In this context Peel has been progressing two additional sites (as referenced at its AGM) through pre-planning engineering, to incorporate these improvements. Consultation with the local council authorities is expected to be initiated shortly.

Potential for positive returns within two years

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 two 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 negotiated by Peel, together with fees from expected feedstock

testing and site-specific engineering design work, TPI considers the recent completion of the [Waste2Tricity Limited](#) ("W2T") acquisition could enable the capital-light Company to start generating returns for shareholders within the next two years, based on its expectation of having two fully operational sites plus a further four under construction by then. During this time, Powerhouse will also further progress its planned international licensing roll-out to selected, well-financed partners based on exclusivity terms similarly to those it has already negotiated and put in place for the UK. Importantly in this respect, the Board has stated its confidence that the £5.0m (gross) equity fund raise it completed on [9 September 2020](#) will be sufficient to secure it financially through the development of the first application at Protos and, with domestic and international interest in DMG[®] technology continuing to strengthen as this progresses in tandem with rising confidence in the application's scalability, the opening months of 2021 are expected to very active indeed.

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