



POWERHOUSE

ENERGY GROUP

Investor Webinar
Turner Pope Investments (TPI)
Vox Markets
Tim Yeo – Executive Chairman
David Ryan - CEO

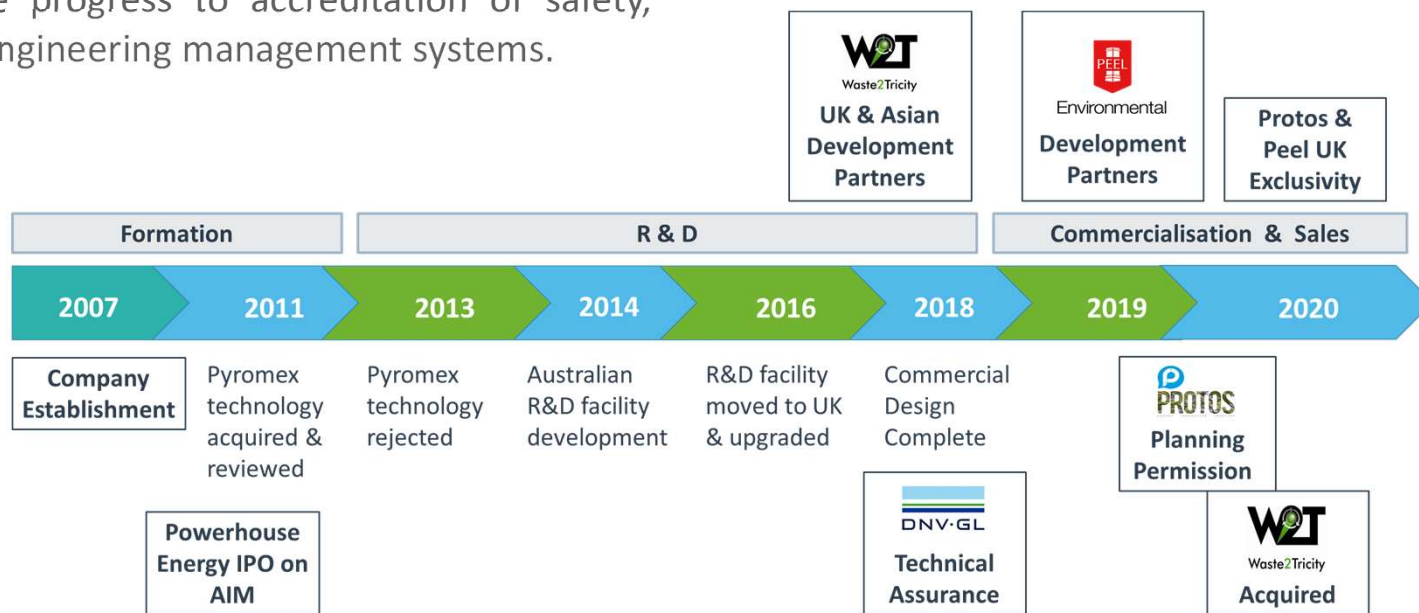
21st January 2021

Introduction

- Powerhouse Energy is an AIM listed proprietary technology licensing company at the nexus of two global challenges:
 - Action on climate change
 - Global plastic waste crisis
- Our product DMG solution relies on conventional technologies to convert untreatable plastic waste into a valuable synthetic gas (“syngas”).
- A key differentiator is that DMG can produce clean energy from all difficult plastics.
- The process generates source of high purity hydrogen for vehicle fuel cell vehicles PSV & HGV.
- The Company is readying itself for operations to support the company in the progress to accreditation of safety, environmental and engineering management systems.

- Powerhouse generates revenues from licenses and engineering support of its DMG waste plastic to hydrogen and power product.
- Strong commercial partner in Peel NRE Environmental developing first facility and UK business plan of over 77 facilities.
- The first application of the DMG technology is in development at Peel’s Protos energy park in Ellesmere Port

Company Timeline



Current Corporate Activities

Raise Background

- The Company raised funds to support the operational development of the company in September 2020.
- The company priority is to deliver the Protos project to protect the schedule for the development the Company has now raised a further £10m through a placement of new Ordinary Shares in January 2021.

Use of Funds

- The funds are primarily to be used to protect the schedule for the delivery of the Protos development by advancing the project procurement and delivery of long lead items before the formal financial close.
- The proceeds will also allow Powerhouse to finalise engagement in the Special Project Vehicle (“SPV”) to be established to deliver the Protos plant.

Benefits

- The project schedule will be advanced, protecting the schedule to construct and commissioning of the plant, the completion of the Protos project in early 2022, which is the Company’s priority.
- The formal Financial close will be advanced – which will trigger the start of the 6 month window for the exercise of Peel's option to subscribe for 371 million shares.
- The delivery to programme protects the generation of license fees at commissioning of Protos and eliminates the risk that market conditions could delay financial close on Protos.
- The Company remains focussed on our strategic model generating licensing income, in this instance the engagement is driven by the priority of protecting the schedule for the first application.

UK Partnership - Peel L&P Environmental

Powerhouse – Peel NRE Environmental Limited

- Exclusive UK licensing and collaboration with Peel NRE Environmental – £5 billion leading infrastructure, transport and real estate investor.
- Development of the Protos plant with an identified pipeline of a further 15 projects and at least 77 UK sites.
- UK exclusivity payment of £500,000 to be made to Powerhouse by Peel NRE Environmental Limited.

Peel Investment

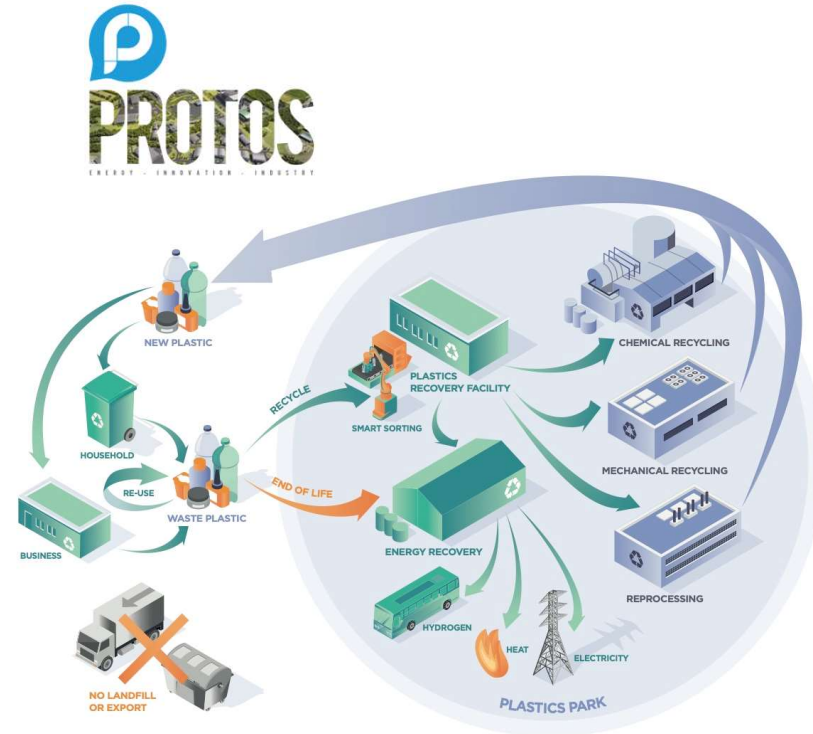
- Peel Holdings have invested £1m in September 2020 recent raise
- Peel has an option to acquire 10% of the Company

Business Strategy

- Powerhouse provides engineering services, a technical advisory role through facility construction.
- Peel procures construction, funding, feedstock supply and hydrogen off take agreements.
- Subsequent to Protos the Powerhouse business strategy has limited risk exposure and low capital overhead.

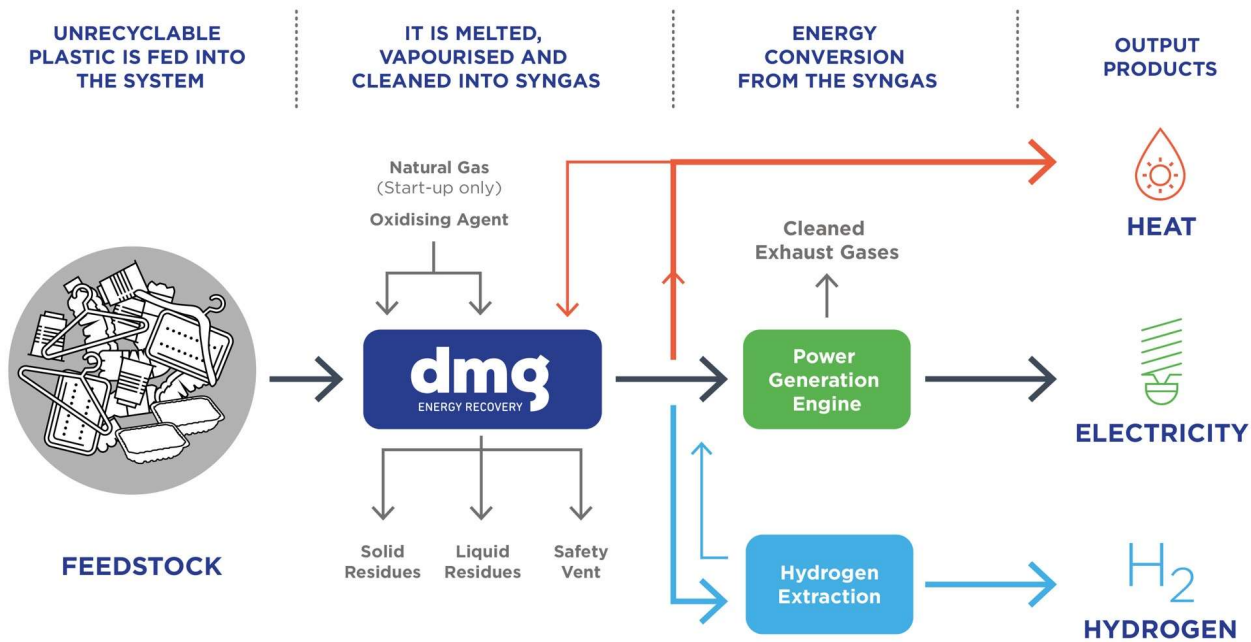
Protos Energy Park, Ellesmere Port

- The first Plastic Park is to be located at Protos, Ellesmere Port
- The Plastic Park is planned to handle around 300,000 tpa of plastic



Distributed Modular Generation (DMG)

- The DMG process novel design IP is bound within the chemical engineering and control model of the process to create the clean gas product.
- The non-recyclable plastic is heated at high temperature in reduced oxygen conditions and produces a clean syngas made up of hydrogen, methane and carbon monoxide along with small amounts of carbon dioxide and oxygen.
- Hydrogen for export is produced through a Pressure Swing Adsorption unit for use on hydrogen filling stations and remaining gas used to generate electricity and heat.
- Technical development continues and in QTR 4 2020 a revision to the process design was announced to allow large packets of hydrogen to be transported to distribution to local fleet garages. to support the nascent uptake of fuel cell vehicles for lorries and buses.
- Technical assurance work to remove and mitigate the technical issues continues – assisted by international design contractor DNV-GL and industry experts



Hydrogen Mode
 Regenerating ~40 tonnes per day of waste plastic
 Costing ~£20M

Each DMG can regenerate

48MWh
 Exportable power per day

2 tonnes
 Hydrogen produced per day
 fuel for 60 lorries
 to travel 250-300 miles

Source for all figures and data : Protos Engineering Definition Report - Enermech

Protos Project – First Application of DMG technology

The first application of the DMG technology is in development at Peel’s Protos energy park in Ellesmere Port.

The Local Authority planning approval granted in March 2020

Front End Engineering was completed in Quarter 3 2020

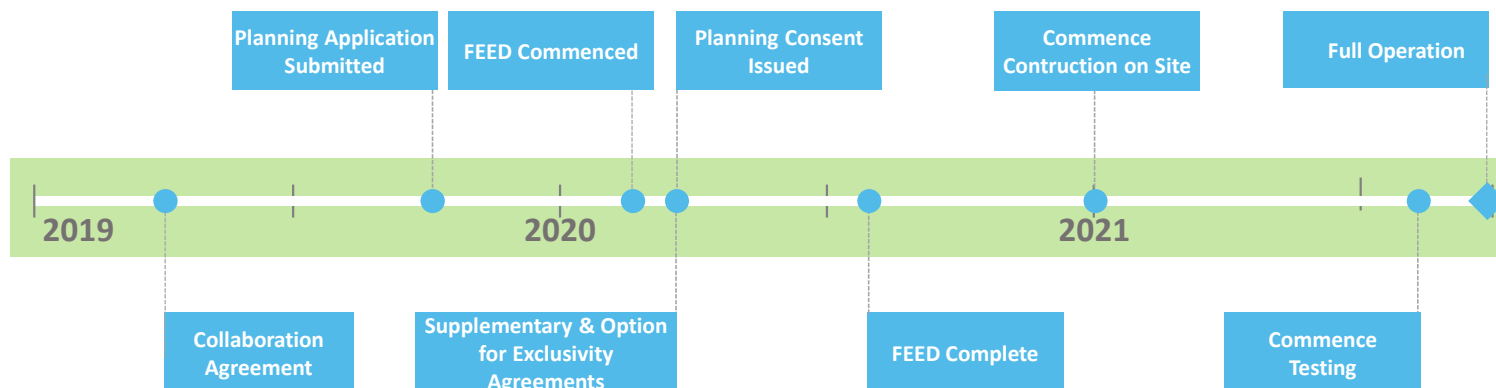
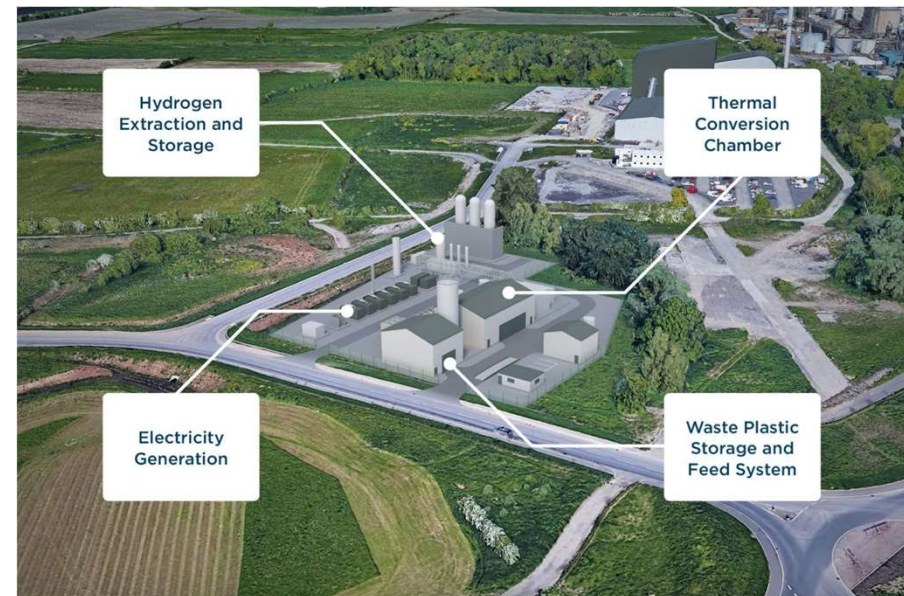
Subsequent work has concentrated on contracting and vendors and design upgrade to accommodate packets of hydrogen to be transported to local fleet operators

Recent Project Activity

- Contractor and vendor bidding and commercial negotiations are ongoing
- Vendor equipment specification alignment to Protos requirements
- Formal safety reviews completed and third party validation initiated

Site Works

- Completed site clearance and new access road in preparation
- Raise monies will be used to support equipment purchase



International Business Development

- International development on similar model to UK with exclusivity fees, engineering support and annual licence payments – utilising Protos facility as reference to create an international marketing platform
- Regional partners will be blue chip industrial and manufacturing majors together with waste and energy companies and reviews ongoing by interested parties with a view to completion at operation of Protos
- In most attractive markets with significant commercial opportunity any exclusive engagement will be held for operation of Protos and competitive negotiation
- Australian project partners developing their opportunities with mercantile customers and municipal tenders
- Recently announced Polish partners developing consortia delivery partners



Financial Model

Currently Powerhouse is modelling solely on UK sales, aligned to Peel contracts.

International projects will be delivered with marginal overhead increase relying on international Partners

Income Routes

- Exclusivity fees – UK Exclusivity of £500,000 is indicative of expectation for international exclusivity for developed locations
- Engineering Design Services on projects
- Build Phase Services
- Licence Income of £500,000 pa recurring per project
- Expenses
- Overheads

Later Revenue Opportunities

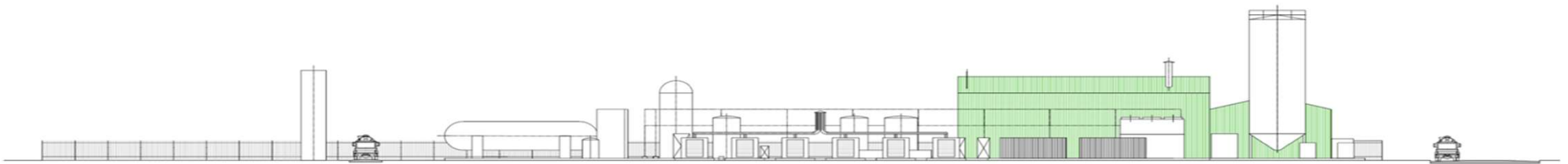
- Deepening engagement in project services
- Manufacturing engagement – potential JV to protect both IP and project delivery supply chain

Licensing Model

- Company consider that Licensing service model, allows multiple site service delivery with minimal increase in cost of services.
- Project costs are met through engineering services contracts from feasibility through to commissioning.
- Partnering and Licensing model will not require a significant growth in Powerhouse overhead as new project work is supported by Partner's EPC companies.
- Engagement in Protos SPV considered unique and the Company remains focussed on our strategic model of generating licensing income on UK and International future projects.

Summary

- Powerhouse has sound business model with multiple revenue streams and continued growth of commercial engagements will provide the platform to establish the Company as a sustainable and profitable business.
- DMG Technology is a local solution to a growing global problem.
- The Company has taken action to protect the schedule of delivery for Protos.
- The Company is in a stable financial position, with funds in bank to support operation to revenue generation and now engagement in the SPV.
- Significant partnership with Peel strengthened for UK roll out to 15 more priority sites and further potential opportunities from its extensive land bank.
- Licensing **and** partnership models will enable managed roll-out of DMG[®] to meet growing demand in UK and internationally.



Elevation of Typical DMG Plot – Demonstrating Minimal Visual Impact

Questions & Answers

Thankyou for your patience and now we will be pleased to take questions.

