Haydale Graphene Industries plc

("Haydale" or the "Company")

Acquisition of EPL Composite Solutions Limited ("EPL")

Haydale Graphene Industries plc (AIM:HAYD), the Company focused on enabling technology for the commercialisation of graphene, is pleased to announce that it has entered into an agreement to acquire the entire issued share capital of EPL, specialists in the design, development and commercialisation of advanced composite polymer materials both in the UK and overseas (the "Acquisition").

# Highlights:

- EPL is a recognised composite R&D and testing house, based in Loughborough with 17 scientists and technicians. EPL's customers include significant corporations such as National Grid, SSE, Eirgrid, Chevron, Anglian Water, Severn Trent Water, Yorkshire Water and 3M;
- Total maximum consideration payable is £1.381 million comprising £400,000 in cash and £187,691 in directors loans with up to £792,500, payable in either cash and/or shares in the Company based on earnings targets to 30 June 2016;
- EPL is already revenue generating with sales of £815,000 and profit before taxation of £26,000 in the year ended 31 March 2014;
- Haydale has agreed commercial terms with Silicon Valley Bank for a new £500,000 facility to part fund the Acquisition. The loan has a three year term with repayments expected to be funded from cash generated by EPL. The facility thereby preserves the Group's existing cash resources to fund its other development and growth programmes; and
- Recent tests conducted by EPL, in collaboration with Haydale, using a standard epoxy resin mixed with Haydale functionalised Graphene Nano Platelets ("GNPs"), have shown over a 200% improvement in ultimate tensile strength (a measure of material toughness) using just 2% loading of Haydale's GNPs.

## Further information:

The Acquisition by Haydale of EPL is for an aggregate consideration of up to £1.381 million payable in cash and new ordinary shares in Haydale. The Acquisition is in line with Haydale's strategy of forming partnerships with companies who already have market presence in its target sectors. EPL's access to the composites market is intended to enhance Haydale's sales potential in this area. Haydale and EPL are already collaborating on a number of projects.

The Acquisition is a major step in capitalising on Haydale's proprietary technology which enables it to incorporate graphene and other nano enhancing fillers into composites; a global and growing industry where market research firm IDTechEx forecast the Graphene element alone to be worth approximately \$80m by 2018.

EPL has developed a reputation for delivering innovative solutions in the commercial applications of advanced polymer composite materials working with global companies over more than 20 years. EPL is focused on a range of market sectors including pipe lining for the oil, gas and water industries, infrastructure for electricity and energy sectors plus the marine and transportation markets.

EPL's competence spans the entire development cycle from applied research, product design, process development, product testing and certification, to setting up manufacturing plants. EPL also works with OEMs and end-users to develop and provide composite solutions with demonstrable clear technical, economic and environmental benefits over existing structures currently manufactured in traditional materials such as steel, aluminium, wood or concrete.

Ray Gibbs, CEO at Haydale, commented:

"This acquisition is a major step forward for us because the rapidly growing composites industry is known for the early adoption of new technologies and is one of the major markets for embracing disruptive technology and introducing innovative new materials. The ground breaking work independently undertaken by Aerospace Corporation in the USA using our standard plasma treated GNPs has already proven that our patented applied for process can enable the development of lighter, stronger composite materials and we now have direct access to companies looking for exactly that. In addition, the credibility of our plasma process was boosted when the UK National Physical Laboratory ("NPL") reported positively on the confirmation of our capability to add compatible chemical groups on the surface of the GNPs: known as functionalisation."

## About EPL:

EPL is a well-respected and recognised composite R&D and testing house, based in Loughborough with 17 scientists and technicians. EPL's customers include significant corporations such as National Grid, SSE, Eirgrid, Chevron, Anglian Water, Severn Trent Water, Yorkshire Water and 3M.

In recent tests conducted by Haydale, in collaboration with EPL, using a standard epoxy resin mixed with Haydale functionalised GNPs, Haydale achieved over a 200% improvement in ultimate tensile strength (a measure of material toughness) using just 2% loading of Haydale's GNPs. These excellent results can now be demonstrated to the composite industry and specifically, to the extensive client list of EPL.

In the year ended 31 March 2014, EPL's audited sales were £815,000 and profit before taxation was £26,000. Audited net assets were £274,000 as at 31 March 2014. EPL's management will continue to manage EPL's business and Gerry Boyce, the majority owner and Managing Director of EPL, will join the board of Haydale Limited, the Company's main operating subsidiary.

## **Acquisition Details:**

EPL is being acquired for a mix of cash and new ordinary shares in Haydale. Initial Consideration comprises £400,000 in cash ("Initial Consideration") and Haydale will procure the repayment by EPL of £187,691 of shareholder loans due to the EPL shareholders of which £123,643 will be immediately applied by Gerry Boyce in subscribing for 198,623 new ordinary shares in Haydale at a price of 62.25p per share (being the closing price of Haydale shares on 31 October 2014) ("New Shares"). The New Shares are subject to a 12 month lock-in provision, followed by a 12 month orderly market

arrangement. In addition, the EPL vendors may receive up to a further £792,500 payable in cash (or, at the election of the vendors, new ordinary shares in Haydale at the closing price of Haydale on the date immediately prior to the date of such election), dependent on EPL achieving certain agreed profit targets for the period to 30 June 2016. The EPL vendors are providing Haydale with usual warranties and indemnities in respect of EPL and their ownership of it.

To satisfy the Initial Consideration, Haydale is pleased to announce that it has agreed commercial terms with Silicon Valley Bank ("SVB") to provide Haydale with a three year, £500,000 loan facility ("Facility"). The rationale for entering the Facility is to allow Haydale to preserve its existing cash balance for organic growth and to match EPL's expected cash generation against the Facility's repayment profile. Silicon Valley Bank is a commercial bank that is dedicated to serving technology, life science, venture capital and private equity businesses.

Application for the admission of the New Shares to trading on AIM has been made and trading in the New Shares is expected to commence on 6 November 2014. The New Shares will rank pari passu with the existing ordinary shares of the Company. Following the issue of the New Shares, the Company's enlarged issued ordinary share capital will comprise 11,446,446 ordinary shares of 2p each. This number may be used by shareholders in the Company as the denominator for the calculations by which they will determine if they are required to notify their interest in, or a change in their interest in, the share capital of the Company under the FCA's Disclosure and Transparency Rules.

## Ray Gibbs continued:

"The acquisition of EPL provides us with an immediate route into the fast moving and dynamic composites market together with a substantial R&D resource and dedicated composite and polymer expertise to boost our current in-house capability. Our strategy is to provide solutions in enabling the commercialisation of graphene in key targeted strategic markets. Our recent collaboration with the speciality inks and coatings solutions provider, the Welsh Centre for Printing and Coating (WCPC), addresses one of our key strategic markets. The acquisition of EPL, together with our WCPC association, provides us direct access into two substantial industries known for the early adoption of new technologies and offers us exciting future opportunities."

Gerry Boyce, the majority owner of EPL added:

"We have been working with Haydale since the beginning of this year testing their materials and have been very impressed with their technology. The composite industry is always looking for innovative technology and has long recognised the benefits of using nanomaterials in composites. Haydale's proprietary technology, as verified by Aerospace Corp and NPL, opens up a range of opportunities in the composites world not previously available to EPL."

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## About Haydale

Haydale has developed a patent-pending proprietary scalable plasma process to functionalise graphene and other nanomaterials. This enabling technology can provide Haydale with a rapid and highly cost-efficient method of supplying tailored solutions to enhance applications for both raw material suppliers and product manufacturers.

Functionalisation is carried out through a low-pressure plasma process that treats both mined, organic fine powder and other synthetically produced nanomaterial powders, producing high-quality few layered graphenes and graphene nanoplatelets. The process can functionalise with a range of chemical groups, with the level of functionalisation tailored to the customer's needs. Good dispersion improves the properties and performance of the host material and ensures the final product performs as specified.

The Haydale plasma process does not use wet chemistry, nor does it damage the material being processed; rather, it can clean up any impurities inherent in the raw material. The technology is a low energy user and most importantly environmentally friendly. The Haydale method is an enabling technology, allowing the Company to work with a raw material producer who seeks to add value to the base product and tailor the outputs to meet the target applications of the end user.

Haydale, based in South Wales and housed in a purpose-built facility for processing and handling nanomaterials, is facilitating the application of graphenes and other nanomaterials in fields such as inks, sensors, energy storage, photovoltaics, composites, paints and coatings.

www.haydale.com

About EPL

EPL is an independent company specialising in the design, development and commercialisation of advanced polymer composite materials on a global basis.

EPL spans the entire development cycle from applied research, product design, process development, product testing and certification, to setting up manufacturing plants. EPL also works with OEMs and end-users to develop and demonstrate composite solutions which provide clear technical, economic and environmental benefits over existing structures currently manufactured in traditional materials such as steel, aluminium, wood or concrete.

Having demonstrated these benefits and generated a demand, EPL then looks to identify commercial partners – either under licence or as a joint venture – to scale up and manufacture the composite solution on either a regional or global volume basis.

www.eplcompositesolutions.co.uk