

28 September 2018

**PowerHouse Energy Group plc  
("PowerHouse" or the "Company")**

**Interim results for the six months ended 30 June 2018**

PowerHouse Energy Group plc (AIM: PHE), the UK technology company pioneering hydrogen production from waste plastic and used tyres, announces its unaudited interim results for the six months ended 30 June 2018.

**H1 2018 Highlights**

***Operational***

- Completion of Front-end Engineering and Design Program (FEED) for DMG® System
- Initiation of planning and permitting process for Ellesmere Port site
- Continued operation of G3 Process Demonstration facility and additional data acquisition
- Augmenting of Commercial Operation/Business Development Team

***Financial***

- Equity fundraisings totalling £2,088,434 which includes shares issued to settle the Hillgrove loan note and to consultants in lieu of services provided.

**Post-period Highlights**

- Active engagement of Element Energy to assist with UK & EU Grant Funding Applications
- Accelerated commercial activities by PHE and Waste2Tricity, Ltd ~~secure external, non-dilutive, funding~~ for first DMG® facility
- Engagement of third-party Engineering validation – process well underway and due for completion in the coming weeks.

This announcement contains inside information for the purposes of Article 7 of Regulation (EU) No 596/2014.

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**About PowerHouse Energy**

PowerHouse Energy 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 EcoSynthesis gas from which valuable products such as chemical precursors, hydrogen, electricity and

other industrial products may be derived. The PowerHouse technology is one of the world's first proven, modular, hydrogen from waste (HfW) process.

The PowerHouse DMG® process can generate in excess of 1 tonne of road-fuel quality H<sub>2</sub>, and more than 28MW/h of exportable electricity per day.

The PowerHouse process produces low levels of safe residues and requires a small operating footprint, making it suitable for deployment at enterprise and community level.

PowerHouse is quoted on the London Stock Exchange's AIM Market under the ticker: PHE, and is incorporated in the United Kingdom.

For more information see [www.powerhouseenergy.net](http://www.powerhouseenergy.net)

## **Interim Results for the six months to 30 June 2018**

### **Chairman's Statement**

#### **Introduction**

PowerHouse has made progress in the first half of 2018 on a number of fronts, the most significant of which is completion of the Front-end Engineering and Design (FEED) process for its generic DMG<sup>®</sup> System. This milestone was accomplished through the efforts of the design engineering team at EngSolve, the test engineering team at PowerHouse, and the application of the empirical data that had been acquired from the on-going operation of the G3-UHt Process Demonstrator at the Thornton Science Park.

Additionally, the Company was able to complete the retirement of the Hillgrove Convertible Loan Note (the **Note**) through the issuance and placement of the shares outstanding against the Note. This has allowed the Company to accelerate its technical and commercial aims, and freed the Company from the substantial overhang of shares thereby represented.

The principal activity of the Company is to continue the exploitation of the newly engineered and developed PHE Waste-to-Energy system, DMG<sup>®</sup>, and associated advances in its intellectual property and know-how, in order to achieve successful commercial roll-out of DMG<sup>®</sup>. The system's thermal conversion process converts waste materials such as non-recyclable plastic, biomass, and other waste streams into a high-quality, clean, EcoSynthesis<sup>®</sup> gas composed primarily of hydrogen, methane, and carbon monoxide. The previously developed and constructed PHE G3-UHt Process Demonstration system continues to be operational at Thornton Science Park near Chester, UK.

We have created what we believe to be a distinct and sustainable business model with DMG<sup>®</sup> and the IP that underscores it: distributed waste elimination; distributed electrical generation; distributed hydrogen production, and the extraction of chemical precursors from heretofore wasted resources - quite literally, waste.

The Company continues to develop commercial interest in the DMG<sup>®</sup> System and is in advanced negotiations with selected parties regarding the deployment of our initial system and in ongoing discussions with a broader range of potential partners and customers for utilising our technology. We are confident that the completion of our first commercial system will precipitate significant demand for the DMG<sup>®</sup> System in multiple geographical regions.

PowerHouse no longer sees itself as simply a developer of Waste-to-Energy technology, but also as a pioneer in the nascent process of deriving hydrogen, and other chemical precursors, from waste. We are convinced that DMG<sup>®</sup> technologies will help fuel our future, cleanly, efficiently and profitably.

#### **Our strategy**

The Company's long-term strategy is to utilise its intellectual, engineering, and operational know-how and to license its intellectual property, to assist in the building of sustainable and profitable waste eradication, energy recovery, and distributed electrical and hydrogen production operations utilising the Company's proprietary thermal conversion platform technology (DMG<sup>®</sup>). This will be achieved by working in conjunction with a variety of third-party owner/operators, leading industry partners, and others including waste management companies, material recovery facilities, landfill operators, technology providers, and a suite of external project development partners.

Additionally, the Company will seek to exploit associated opportunities where the Board believes it can add significant value and contribute towards the success of the Company as a whole.

At present the Company's principal assets are its G3-UHT process demonstrator, currently located at the University of Chester Thornton Science Park, the test data derived, and the Commercial Design materials developed during the on-going Engineering process.

As we enter the commercialisation phase for our proprietary DMG® technology platform, our strategy is to target licensing revenues to move PowerHouse towards becoming a profitable and sustainable business meeting the ever growing global demand for efficient elimination of unrecyclable plastic waste and end of use tyres, the production of clean energy, and the extraction of other useful resources from waste.

### **Developing our business model**

The Company intends to further develop its DMG® process into a fully operational commercial unit capable of processing a nominal 25 tonnes per day of waste and deriving valuable resources such as EcoSynthesis Gas, hydrogen, distributed electricity, and other chemical precursors. It is expected that activities will commence in the UK in the near-term in partnership with Waste2tricity Ltd, an experienced waste-to-energy project development organisation.

The Company also continues the planning and permitting process related to the Peel Environmental site near Ellesmere Port and, furthermore, is concurrently evaluating a number of other potential sites for the roll-out and licensing of its initial DMG® technology.

Over the longer term the Company will look to exploit its proprietary know-how, technology developments, and other processes to develop economical, environmentally sound, and efficient solutions to capture even more physical and chemical energy from the growing waste-steam generated by our planet. Customers are being identified not just in the UK, but across the EU, and in other selected geographic territories.

### **Commercialisation**

The commercialisation phase is now well underway and we are making positive progress by taking a customer-led approach, involving a combination of strategic alliances, commercial partnering and working directly with potential customers/licensors of our IP. Our flexible approach combined with the modular design of our DMG® System allows us to tailor our technology to meet the most specific of partner and customer requirements.

The generic Front End Engineering Design (FEED) Engineering is now complete, allowing initial safety design reviews and independent third party design reviews which have been initiated on schedule. Third party engineering verification is well underway with results expected in the coming weeks.

We are now focussing on specific applications of the DMG® technology and are in active negotiation and discussions with a number of "early-adopter" commercial customers for our IP. The fabrication, build, and commissioning of the first DMG® system is expected to be completed, depending on specific customer requirements, and adequate funding being in place, by the end of Q3 2019 with full commercial operation commencing soon thereafter.

We are also actively pursuing a number of grant applications, which if successful, will result in additional funding during 2019.

We note that the share price has fallen this year as we have been required to retire the Note and to raise cash for Company operations. However, we believe this to be a short-term situation for the Company and the Board is confident that third-party technical validation, the appointment of a partner for the fabrication and construction of the first DMG® facility, and, of course, the first contracted

commercial order utilising our proprietary DMG® technology, will drive what the Board believes to be the considerable value inherent in PowerHouse.

## **Outlook**

We believe we have the right strategy in place to deliver substantive growth over the medium to longer-term and to deliver sustainable shareholder value as the commercialisation strategy for our proprietary DMG® technology platform targets revenues to move PowerHouse towards becoming a profitable business.

The Company is currently pre-revenue and is reliant on being able to raise further funds to continue its development as outlined in the going concern note 1.2 of these interim statements.

The Board appreciates the continued support of our shareholders and is making every effort to repay your confidence in the Company and its future.

## **Corporate Governance**

As required under changes to the AIM Rules PowerHouse has adopted a new Corporate Governance Code, the QCA Code. Full details of how the Company complies with the Code are set out on the Company's website <https://www.powerhouseenergy.net/investors/corporate-governance/>

Dr. Cameron Davies  
Non-Executive Chairman

## Statement of Comprehensive Income

	<b>(Unaudited)</b> <b>Six months</b> <b>ended</b> <b>30 June</b> <b>2018</b> <b>£</b>	(Unaudited) Six months ended 30 June 2017 £	(Audited) Year ended 31 December 2017 £
<b>Revenue</b>	-	-	-
Cost of sales	-	-	-
<b>Gross loss</b>	-	-	-
Administrative expenses	<b>(725,872)</b>	(424,144)	(1,272,204)
Research and development	<b>(411,301)</b>	(202,842)	(527,547)
Share based payments	<b>(26,953)</b>	-	(5,078)
<b>Operating loss</b>	<b>(1,164,126)</b>	(626,986)	(1,804,829)
Finance costs	<b>(545)</b>	(69,863)	(69,863)
<b>Loss before taxation</b>	<b>(1,164,671)</b>	(696,849)	(1,874,692)
Taxation	-	-	-
Loss after taxation	<b>(1,164,671)</b>	(696,849)	(1,874,692)
<b>Total comprehensive expense</b>	<b>(1,164,671)</b>	(696,849)	(1,874,692)
<b>Total comprehensive expense attributable to:</b>			
Owners of the Company	<b>(1,164,671)</b>	(696,849)	(1,874,692)
Non-controlling interests	-	-	-
Basic and diluted loss per share in pence	<b>3</b>	(0.08)	(0.19)

The notes numbered 1 to 5 are an integral part of the interim financial information.

## Statement of Changes in Equity

	Share capital £	Share premium £	Accumulated losses £	Total £
Balance at 1 January 2017 (audited)	6,153,455	47,031,989	(56,412,008)	(3,226,564)
Transactions with equity participants:				
- Shares issued in lieu of services	37,300	32,700	-	70,000
- Shares issued	1,741,071	1,008,929	-	2,750,000
- Share issue fees	-	(155,126)	-	(155,126)
Total comprehensive loss	-	-	(696,849)	(696,849)
<b>Balance at 30 June 2017 (unaudited)</b>	<b>7,931,826</b>	<b>47,918,492</b>	<b>(57,108,857)</b>	<b>(1,258,539)</b>
Transactions with equity participants:				
- Shares issued in lieu of services	66,316	53,684	-	120,000
- Shares issued	800,000	800,000	-	1,600,000
- Share issue fees	-	(90,384)	-	(90,384)
Share based payment	-	-	5,078	5,078
Total comprehensive loss	-	-	(1,177,843)	(1,177,843)
<b>Balance at 31 December 2017 (audited) (GBP)</b>	<b>8,798,142</b>	<b>48,681,792</b>	<b>(58,281,622)</b>	<b>(801,688)</b>
Transactions with equity participants:				
- Shares issued to settle liabilities	1,402,155	-	-	1,402,155
- Shares issued	576,277	-	-	576,277
- Shares issued in lieu of services	89,476	20,526	-	110,002
Share based payment	-	-	26,953	26,953
Total comprehensive loss	-	-	(1,164,671)	(1,164,671)
<b>Balance at 30 June 2018 (unaudited)</b>	<b>10,866,050</b>	<b>48,702,318</b>	<b>(59,419,340)</b>	<b>149,028</b>

The notes numbered 1 to 5 are an integral part of the interim financial information.

## Statement of Financial Position

		(Unaudited) As at 30 June 2018 £	(Unaudited) As at 30 June 2017 £	(Audited) As at 31 December 2017 £
<b>ASSETS</b>				
<b>Non-current assets</b>				
Property, plant and equipment		2,290	2,424	2,601
Investments		1	1	1
<b>Total non-current assets</b>		<b>2,291</b>	2,425	2,602
<b>Current Assets</b>				
Trade and other receivables		238,994	90,771	88,495
Cash and cash equivalents		252,628	144,616	750,226
<b>Total current assets</b>		<b>491,622</b>	235,387	838,721
<b>Total assets</b>		<b>493,913</b>	237,812	841,323
<b>LIABILITIES</b>				
<b>Non-current liabilities</b>				
Loans	4	-	-	-
<b>Total non-current liabilities</b>		-	-	-
<b>Current liabilities</b>				
Loans	4	-	(1,402,155)	(1,402,155)
Trade and other payables	5	(344,885)	(94,196)	(240,856)
<b>Total current liabilities</b>		<b>(344,885)</b>	(1,496,351)	(1,643,011)
<b>Total assets / (liabilities)</b>		<b>(344,885)</b>	(1,496,351)	(1,643,011)
<b>Net Liabilities</b>		<b>149,028</b>	(1,258,539)	(801,688)
<b>EQUITY</b>				
Shares and stock	2	10,866,050	7,931,826	8,798,142
Share premium		48,702,318	47,918,492	48,681,792
Accumulated losses		(59,419,340)	(57,108,857)	(58,281,622)
<b>Total surplus / (deficit)</b>		<b>149,028</b>	(1,258,539)	(801,688)

The notes numbered 1 to 5 are an integral part of the interim financial information.



## Statement of Cash Flows

	(Unaudited) Six months ended 30 June 2018 £	(Unaudited) Six months ended 30 June 2017 £	(Audited) Year ended 31 December 2017 £
<b>Cash flows from operating activities</b>			
Operating loss	(1,164,126)	(626,986)	(1,804,829)
Adjustments for:			
- Share based payment	26,953	-	5,078
- Expenses settled by shares	110,002	70,000	190,000
- Depreciation	568	-	808
Changes in working capital:			
- (Increase) / Decrease in trade and other receivables	(150,499)	(84,436)	(82,159)
- Increase / (Decrease) in trade and other payables	104,029	43,013	189,672
<b>Net cash used in operations</b>	<b>(1,073,073)</b>	(598,409)	(1,501,430)
<b>Cash flows from investing activities</b>			
Purchase of fixed assets	(257)	-	(985)
<b>Cash flows from financing activities</b>			
Share issues	2,088,434	2,664,874	4,294,490
Expenses settled by shares	(110,002)	(70,000)	(190,000)
Finance costs	(545)	(69,863)	(69,863)
Loans received	-	69,863	69,863
Loans repaid	(1,402,155)	(2,000,000)	(2,000,000)
<b>Net cash flows from financing activities</b>	<b>575,732</b>	594,874	2,104,490
<b>Net (decrease) / increase in cash and cash equivalents</b>	<b>(497,598)</b>	(3,535)	602,075
Cash and cash equivalents at beginning of period	750,226	148,151	148,151
<b>Cash and cash equivalents at end of period</b>	<b>252,628</b>	144,616	750,226

The notes numbered 1 to 5 are an integral part of the interim financial information.

## Notes (forming part of the interim financial information)

### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The following accounting policies have been applied consistently in dealing with items which are considered material in relation to the financial information.

#### 1.1. Basis of preparation

This interim financial information is for the six months ended 30 June 2018 and has been prepared in accordance with International Accounting Standard 34 "Interim Financial Statements". The accounting policies applied are consistent with International Financial Reporting Standards ("IFRS") adopted for use by the European Union. The accounting policies and methods of computation used in the interim financial information are consistent with those expected to be applied for the year ending 31 December 2018.

The unaudited results for period ended 30 June 2018 do not constitute statutory accounts within the meaning of Section 435 of the Companies Act 2006. The comparative figures for the period ended 31 December 2017 for the company are extracted from the audited financial statements which contained an unqualified audit report and did not contain statements under Sections 498 to 502 of the Companies Act 2006.

This interim financial statement will be, in accordance with the AIM Rules for Companies, available shortly on the Company's website.

#### 1.2. Going concern

The Directors have considered all available information about the future events when considering going concern. The Directors have reviewed cash flow forecasts for 12 months following the date of these Financial Statements.

The cash balance held at 30 June 2018 together with a letter of support provided by one of the Company's shareholders, as stated in the year-end accounts 2017, indicating to the Directors that he intends for at least 12 months from the date of the approval of the 31 December 2017 financial statements to make available a sum of £650,000 to the company, is considered sufficient to ensure that the Company can pay its debts as they fall due. To date the Company has not drawn down any of the funds previously committed and has been assured that the investor continues to make such funds available if necessary. Should the Company not be able to draw on such funds it would need to raise funds in the market, or elsewhere. The Directors are of the opinion that they can raise further funds as and when required through market sources although there can be no guarantee such funds would be forthcoming. Furthermore, the Directors have agreed to waive any future salaries or fees for themselves, if necessary, to allow the Company to repay its debts as and when they fall due. Based on this, the Directors believe it is appropriate to continue to adopt the going concern basis of accounting for the preparation of the interim financial statements.

#### 1.3. Functional and presentational currency

This interim financial information is presented in £ sterling which is the Group's functional currency.

### 2. SHARE CAPITAL

0.5 p Ordinary shares	0.5p Deferred shares	4.5 p Deferred shares	4.0 p Deferred shares
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<b>Balance at 1 January 2018</b>	<b>1,136,872,014</b>	<b>388,496,747</b>	<b>17,373,523</b>	<b>9,737,353</b>
<b>Shares issued</b>	<b>413,581,012</b>	-	-	-
<b>Balance at 30 June 2018</b>	<b>1,550,453,026</b>	<b>388,496,747</b>	<b>17,373,523</b>	<b>9,737,353</b>

The deferred shares have no voting rights and do not carry any entitlement to attend general meetings of the Company. They carry only a right to participate in any return of capital once an amount of £100 has been paid in respect of each ordinary share. The Company is authorised at any time to affect a transfer of the deferred shares without reference to the holders thereof and for no consideration.

On 1 February and 23 April 2018, the Company issued 215,686,275 and 64,744,645 ordinary shares of 0.5p respectively at the agreed price of 0.5p each in final settlement of the outstanding loan balance of Hillgrove of £1,402,155.

On 23 April 2018 the Company issued 115,255,355 ordinary shares of 0.5p each at a price of 0.5p each raising gross proceeds of £576,277.

On 18 May 2018 the Company issued a further 10,000,000 and 7,894,737 ordinary shares of 0.5p each at a price of 0.5p and 0.76p respectively in settlement of services provided.

### 3. LOSS PER SHARE

	<b>(Unaudited)</b> <b>As at</b> <b>30 June</b> <b>2018</b> <b>£</b>	(Unaudited) As at 30 June 2017 £	(Audited) As at 31 December 2017 £
Total comprehensive (expense)/profit (GBP £)	<b>(1,164,671)</b>	(696,849)	(1,874,692)
Weighted average number of shares	<b>1,388,586,432</b>	862,671,965	975,055,119
Basic and Diluted Loss per share in pence	<b>(0.08)</b>	(0.08)	(0.19)

### 4. LOANS

	<b>(Unaudited)</b> <b>As at</b> <b>30 June</b> <b>2018</b> <b>£</b>	(Unaudited) As at 30 June 2017 £	(Audited) As at 31 December 2017 £
Hillgrove Investments Pty Limited	-	1,402,155	1,402,155
Total loans	-	1,402,155	1,402,155
Classified as:			
- Current	-	1,402,155	1,402,155
- Non-current	-	-	-

Hillgrove Investments Pty Limited ("Hillgrove") had provided the Company with a convertible loan which is secured by a debenture over the assets of the company and carries interest of 15 per cent per annum.

Hillgrove had the option at any time to convert the loan in part or whole at a conversion price of 0.5p per share.

In February 2017 Hillgrove accepted a settlement of this loan for a £2m cash pay-out, made in 2017, and the conversion of the residual balance of £1,402,155 into newly issued share capital of the Company at the previously agreed 0.5p conversion price, amounting to 280,430,920 shares. The shares were issued in February and April 2018 as detailed in note 2, and Hillgrove has released the debenture it held over the assets of the Company.

**5. TRADE AND OTHER PAYABLES**

	<b>(Unaudited)</b> <b>As at</b> <b>30 June</b> <b>2018</b> <b>£</b>	<b>(Unaudited)</b> <b>As at</b> <b>30 June</b> <b>2017</b> <b>£</b>	<b>(Audited)</b> <b>As at</b> <b>31 December</b> <b>2017</b> <b>£</b>
Trade creditors	224,614	75,696	125,141
Other creditors and accruals	120,271	18,500	115,715
<b>Total trade and other payables</b>	<b>344,885</b>	<b>94,196</b>	<b>240,856</b>
Classified as:			
- Current	344,885	94,196	240,856
- Non-current	-	-	-