

## 2G Energy

### Positive result for first half

2G Energy continues to diversify its activities by developing export markets and service revenues, so that it is less exposed to changes in the regulatory environment for renewables and CHP in individual markets. Strong domestic demand for biogas modules with a flexible output for use, balancing renewable energy sources that are inherently variable supported 16% revenue growth during H118. This improvement enabled 2G to post a positive first-half result, the first since 2012.

### Strong growth in service revenues de-risks business

Group sales increased by 16% y-o-y to €84.1m, although the headline number was distorted by €8.4m exceptionals. Stripping this out, sales grew by 5%. Growth was driven by a strong increase in sales of biogas modules in Germany and in service revenues. Despite the surge in domestic product sales, exports constituted 46% of all CHP sales and 24% of service sales, showing that the company is becoming more resilient to changes in the regulatory environment in individual markets. It was also pleasing to note that management's initiative to improve monetisation of services was successful, as the development of service revenues gives additional protection from potential downturns in demand for CHP equipment and a mechanism for removing some of the seasonality in sales. Service revenues grew by 21% year-on-year to 46% of the total. EBIT, which was not distorted by the exceptional item, moved from a loss of €0.5m in H117 to a €1.1m profit.

### Management reiterates FY18 guidance

The combination of the positive first half performance and the strong order book position has encouraged management to confirm the guidance for FY18 it gave in April. This is for net sales between €180m and €210m and an EBIT margin of 3.5-5.5%. The FY17 EBIT margin was 3.9%, so management is confident that the efficiency measures introduced in FY17 and further margin increases in the service business will result in a further improvement in this metric.

### Valuation: Trading at a discount to established peers

The share price has dropped from a peak of €24.00 in July. At current levels, it is trading at a discount to the means for our sample of established boiler manufacturers on all metrics, eg the year 1 P/E is 14.4x vs 14.4x for our sample mean. This suggests potential for an uplift in valuation if management is able to raise EBIT margins to the levels shown in the consensus estimates (5.1% FY18).

#### Consensus estimates

Year end	Revenue (€m)	PBT (€m)	EPS (€)	DPS (€)	P/E (x)	Yield (%)
12/16	174.3	5.4	0.40	0.40	53.0	1.9
12/17	189.4	7.2	1.11	0.42	19.1	2.0
12/18e	196.7	9.6	1.47	0.43	14.4	2.0
12/19e	207.3	11.6	1.78	0.47	11.9	2.2

Source: 2G Energy data, Bloomberg

#### Advanced materials technology

2 October 2018

**Price** €21.2  
**Market cap** €93m

#### Share price graph



#### Share details

Code 2GB  
Listing Deutsche Börse Scale  
Shares in issue 4.4m  
Last reported net cash at end June 2018 €14.2m

#### Business description

2G Energy is a leading international manufacturer of highly efficient combined heat and power plants (CHP). These are deployed in the housing industry, agriculture, commercial and industrial companies, public energy utilities, and municipal and local government authorities.

#### Bull

- Decentralised CHP solutions reduce CO<sub>2</sub> emissions by improving conversion efficiency.
- Remote control capability improves service margins and supports flexibilisation.
- Remote control capability aids integration into virtual power plants.

#### Bear

- Uptake affected by green regulation, eg termination of waiver of EEG levy.
- Economics depends on spark spread.
- Low free float (46.7%).

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## Progress on execution of strategy

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### Product development

2G has recently extended its product range to create a CHP system running on hydrogen. These hydrogen modules are a key building block in systems that address the variable output from solar and wind generators by storing the surplus energy in the form of hydrogen. This is a critical to expanding the proportion of energy from non-renewable sources, which is particularly important given the phase-out of nuclear power plants in Germany by 2022 (around 13% of production capacity) and the planned exit from coal (approximately 39% of generation capacity). In September 2G received an order to deliver a purely hydrogen-driven CHP system to Stadtwerk Hassfurt for a highly innovative project in which the hydrogen is produced by electrolysing water. The electrolyser, which is located in the port of Hassfurt, uses surplus electricity generated by the wind park in the adjacent Sailerhäuser Forest. The CHP system reconverts the hydrogen into electricity and heating as required, achieving efficiencies of >90%. The electricity from the CHP system is fed into the city's electricity grid. The heating will be transferred to a neighbouring malt factory, a school and a kindergarten via a heating grid.

### Digitalisation

The efficiency improvements management achieved in FY17 were attributable in part to increasing digitalisation. For example, the power plant interface associated with each CHP system, which sends real-time data on operating parameters to the company's central service centre in Germany, enables engineers to deal with around 70% of all error messages generated by the equipment without having to send a field engineer to the site. This digitalisation has other advantages, too. The remote control interface means that it is relatively easy to integrate 2G's CHP modules within complex systems where the CHP modules need to vary their output to balance varying output from renewable sources and varying demand. This has helped 2G increase its share of the biogas-driven CHP market in Germany from 17.3% in 2014 to an estimated 27.3% in 2018 (source: German Biogas Association).

### Lean philosophy

As part of its 'Lead to Lean' lead project, 2G has worked with an external consulting firm on a 'Terminleitstufen' (deadline guide steps) concept during FY17 with the objective of improving all purchasing and production processes, and reducing seasonal peaks and troughs in production. The new processes began being implemented during H118. Further lean philosophy measures have also been initiated to improve production processes, enabling shorter delivery times, cost reductions and quality enhancements.

## H118 benefits from domestic demand for biogas modules

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### Strong growth in service revenues de-risks business

Group sales increased by 16% y-o-y to €84.1m, although the headline number was distorted by €8.4m in invoices relating to the final settlement of a project in the UK with Agraferm, which filed for bankruptcy in 2017. Stripping this out, sales grew by 5% to €75.7m. This was driven by a strong increase in sales of biogas modules in Germany and in service revenues, although we note that revenues in January and February were depressed by the high level of completed business in December that was invoiced in FY17. Despite the surge in domestic product sales, exports

constituted 46% of all CHP sales and 24% of service sales, showing that the company is becoming more resilient to changes in the German regulatory environment. It was also pleasing to note that management's initiative to improve monetisation of services was successful, as the development of service revenues gives additional protection from potential downturns in demand for CHP equipment and a mechanism for removing some of the seasonality in sales. Service revenues grew by 21% year-on-year to 46% of the total. We note that this proportion will decrease in H2 as product under construction during H118 is shipped.

## **Positive result for H118 – first since 2012**

Stripping out the €8.4m Agraferm revenues, the cost of materials (including purchased services) as a percentage of operating output was similar to the prior-year period, as were both personnel costs and other operating expenses as a percentage of revenues. The underlying improvement in revenues enabled 2G to post a positive first half result, the first since 2012. EBIT, which was not distorted by the Agraferm invoices, moved from a loss of €0.5m in H117 to a €1.1m profit.

## **Investment in new production facility**

Net cash increased by €4.5m during the period to €14.2m at the end of June. Notable items include a €5.4m increase in inventories related to the significantly increased order backlog, a €4.1m reduction in trade receivables, which were unusually high at the end of FY17 because of the high levels of invoicing activity in December, and €4.8m capex. €3.2m of this was allocated to the purchase and fitting of a new building close to the headquarters in Heek to house production and the service operation. This production facility supports the more structured production methodology embodied in the 'Lead to Lean' programme and provides additional capacity.

## **Outlook**

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### **Flexibilisation programme driving domestic demand**

New order intake for the first eight months of the year, which excludes service business, totalled €124.1m, which was 32% above the previous year's level. This benefited from strong demand in Germany related to flexibilisation, ie the modification of existing biogas plants so they can provide a fluctuating output suitable for smoothing out the output renewable sources, which is inherently very variable. In practice, this means either replacing existing plant that has reached the end of its useful life with higher output equipment, or augmenting relatively new plant with smaller modules. As 2G has an extensive customer base with older biogas plant that needs updating, this is providing a good source of sales, even though the regulatory framework in Germany means that domestic demand for greenfield biogas plants or natural gas power plants is currently low. 2G is promoting natural gas systems in European markets outside Germany to establish an alternative medium-term alternative to biogas markets, which are weakening.

### **Management reiterates FY18 guidance**

The combination of the positive first half performance and the strong order book position has encouraged management to confirm the guidance for FY18 it gave in April. This is for net sales between €180m and €210m and an EBIT margin of 3.5-5.5%. FY17 EBIT margin was 3.9%, so management is confident that the efficiency measures introduced in FY17 and further margin increases in the service business will result in a further improvement in this metric.

## Peer valuation

A comparison of prospective peer multiples for companies providing equipment for generating renewable energy yields limited information, because few of the companies have reached commercial revenues and even fewer are generating meaningful profits. 2G Energy is trading on multiples that are lower than our sample mean, which is to be expected given that it has been generating substantial revenues and profits for several years.

The share price has dropped from a peak of €24.00 in July. At current levels, it is trading at a discount to the means for our sample of established boiler manufacturers on all metrics. This suggests potential for an uplift in valuation if management can raise EBIT margins to the levels shown in the consensus estimates, ie 5.1% in FY18.

### Exhibit 1: Peer multiples

Name	Market cap (€m)	EV/Sales 1FY (x)	EV/Sales 2FY (x)	EV/EBITDA 1FY (x)	EV/EBITDA 2FY (x)	P/E 1FY (x)	P/E 2FY (x)	EBIT margin 1FY (%)
AFC Energy	30	5.5	1.8	-	-	(6.7)	(8.4)	(100.0)
Ballard Power Systems	635	5.9	4.5	(159.8)	86.3	(57.9)	(2,027.5)	(9.1)
Ceres Power Holdings	274	35.2	19.6	(21.4)	(27.8)	(18.9)	(32.7)	(181.5)
Electro Power Systems	151	5.5	3.5	37.2	16.1	79.6	20.9	9.4
Enertime	7	1.6	1.3	(13.6)	(17.0)	(10.8)	(13.0)	-
Fuelcell Energy	91	2.5	1.6	(6.6)	(10.9)	(1.5)	(2.1)	(49.2)
Hydrogenics Corp	96	1.8	1.3	(27.7)	34.4	(14.8)	(713.5)	(8.4)
ITM Power	101	6.6	3.6	(13.7)	(19.6)	(25.0)	(30.6)	-
Nordex	887	0.4	0.4	9.7	6.9	(19.2)	1,295.7	(0.8)
Plug Power	364	3.3	2.4	(23.1)	80.1	(5.7)	(8.9)	(39.6)
Redt Energy	81	21.4	4.2	(8.1)	(10.5)	(7.0)	(9.3)	(309.9)
Senvion	453	0.4	0.3	6.7	4.5	(49.1)	12.7	0.4
SFC Energy AG-BR	84	1.3	1.1	31.9	11.0	85.3	20.3	2.1
Vestas Wind Systems	11,759	0.9	0.9	6.6	6.5	15.0	14.5	10.1
<b>Mean</b>		<b>3.0</b>	<b>2.1</b>	<b>18.4</b>	<b>13.2</b>	<b>60.0</b>	<b>17.1</b>	
Deutz	951	0.5	0.5	5.3	4.7	16.0	12.4	4.4
Generac Holdings	3,102	2.4	2.3	11.8	11.6	14.8	14.4	16.8
Rafako	60	0.2	0.1	6.2	2.8	12.4	4.2	1.8
<b>Mean</b>		<b>1.0</b>	<b>1.0</b>	<b>7.8</b>	<b>6.4</b>	<b>14.4</b>	<b>13.4</b>	
2G Energy	92	0.4	0.4	5.8	5.0	13.9	11.5	5.1

Source: Bloomberg. Note: Prices at 26 September 2018. Grey shading indicates exclusion from mean.

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