2G Energy

Backbone of the energy revolution

2G Energy continues to diversify its activities by expanding export markets and developing service revenues. This strategy delivered a 14% increase in sales and almost a trebling in EBIT during H119. Importantly, its portfolio of CHP systems fuelled by biogas, natural gas or hydrogen provide mechanisms for providing supplementary power on an intermittent basis or storing surplus energy, thus permitting greater adoption of wind and solar power generation.

EBIT almost trebles in H119

Group sales rose by 13.9% y-o-y to €95.8m. Growth was driven by a 35.5% rise in service revenues outside Germany, continued demand for biogas-powered CHP systems in Germany capable of providing a more flexible output to complement electricity generated from renewable sources, and by demand for natural gas-powered systems in both domestic and export markets. EBIT almost trebled to €2.9m, demonstrating the benefit of operational leverage. The group moved from €6.3m net cash at end FY18 to €7.3m net debt at end H119. The major factor behind this shift was a €14.7m increase in inventories, reflecting not only higher levels of work in progress but also a decision to hold higher volumes of motors to enhance the group's competitive position by offering short delivery times.

Management reiterates FY19 guidance

New order intake during the eight months ended August 2019 totalled €91.4m, giving a total order book of €150.6m, which means that production in two-shift operation will be fully utilised until at least summer 2020. Management reiterated its FY19 revenue guidance of €210–230m, noting that the likely outcome would be in the upper half of this guidance, and EBIT margin guidance of 5.5–7.0%.

Valuation: Scope for further share price improvement

The share price has picked up from a low of €20.20 at the end of December 2018 as the reinstatement of the EEG levy waiver on electricity has renewed interest in natural gas-powered CHP systems in Germany. At the current level, a comparison against established boiler manufacturers shows 2G Energy trading on multiples broadly in line with our sample averages. However, consensus estimates show 2G Energy's revenues growing more quickly than the sample average, potentially justifying multiples that are at a premium to the sample mean on all metrics and indicating scope for further share price improvement.

Consensus estimates

Year end	Revenue (€m)	PBT (€m)	EPS (€)	DPS (€)	P/E (x)	Yield (%)
12/17	189.4	7.2	1.11	0.42	33.3	1.1
12/18	209.8	11.2	1.72	0.45	21.5	1.2
12/19e	229.7	15.7	2.40	0.60	15.4	1.6
12/20e	248.8	19.0	2.82	0.70	13.1	1.9

Source: Refinitiv, company data

Materials

4 October 2019

Price	**€37.0**
Market cap	**€163m**

Share price graph

Share details

Code	2GB
Listing	Deutsche Börse Scale
Shares in issue	4.4m
Last reported net debt at end June 2019	€7.3m

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

- Increasing demand for flexible and decentralised generation of power and heat worldwide as coal-fired power stations are closed down.
- Decentralised CHP solutions reduce CO_2 emissions by improving conversion efficiency.
- Hydrogen-fuelled systems offer mechanism for storing surplus power from renewables.

Bear

- Uptake affected by green regulation.
- Economics depends on spark spread.
- Low free float (47.0%).

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Edison profile page

EBIT almost trebles in H119

Group sales rose by 13.9% y-o-y to a record €95.8m. Growth was driven by a 35.5% rise in service revenues outside Germany, supported by investment in service operations in France and the US and in a new US management team. Additionally, there was continued demand for biogas-powered CHP systems in Germany capable of providing a more flexible output to complement electricity generated from renewable sources, and demand for natural gas-powered systems in both domestic and export markets. Overall, services accounted for 44% (H118: 46%) of total revenues and exports 38% (H118: 36%). Personnel costs reduced slightly as a proportion of operating revenue (by 0.2pp to 17.9%), demonstrating the positive impact of the 'Lead-to-Lean' efficiency programme. Other operating expenses, including external charges such as insurance, decreased by 3.0%. EBIT almost trebled to €2.9m (€1.1m in H118), demonstrating the benefit of operational leverage.

The group moved from €6.3m net cash at end FY18 to €7.3m net debt at end H119. The major factor behind this shift was a €14.7m increase in inventories, reflecting not only higher levels of work in progress but also a decision to hold higher volumes of motors to enhance the group's competitive position by offering short delivery times. Capex totalled €1.9m, including conversion measures at the operating site in Heek, Germany, which allows 2G Energy to purchase spares in bulk, thus improving segmental profitability, as well as ensuring availability of parts for customers. €1.4m was invested in acquiring the outstanding 20% minority stake in 2G Drives, which conducts R&D and engine assembly for the group.

Favourable outlook supported by order book

New order intake during the eight months ended August 2019 totalled €91.4m, giving a total order book of €150.6m. This is below the €161.6m reached in August 2018, which benefited from a one-off boom in the German biogas sector, but was well above the long-term average. Importantly, it means that production capacity in two-shift operation will be fully utilised until at least summer 2020. 43% of new CHP system orders were exports, with particularly strong new order intake for the US (€7.0m), where a new office was opened in Maryland towards the end of FY18, and France (€7.1m). Management reiterated the FY19 revenue guidance given in March (when the lower bound was revised upwards) of €210–230m, noting, as it did in July, that the likely outcome would be in the upper half of this guidance. Based on further margin improvements resulting from the 'Lead-to-Lean' programme and higher sales from the same production base, management reiterated FY19 EBIT margin guidance of 5.5–7.0%. (As sales are second half-weighted and the business is highly operationally geared, the 3.0% H119 EBIT margin is not expected to be representative of the year as a whole.) In the longer-term, management aims to achieve an EBIT margin of 10% on net sales of around €300m by 2024.

Supporting the transition to renewables

Renewable energy generation sources, especially wind and solar, are inherently variable. This will limit the proportion of energy from renewable sources being supplied to a grid unless steps are taken to balance demand and supply by providing a mechanism for storing surplus energy and a mechanism for providing supplementary power on an intermittent basis. 2G Energy is well placed to satisfy both requirements.

Complementing wind and solar energy with biogas

Relatively few new biogas plants are being installed in Germany, only 22MW in 2018 according to the German Biogas Association. However, 268MW of capacity related to 'flexibilization', which is where older biogas plants that operate at a fairly constant output are replaced with higher-output plants that can produce a variable output. 2G Energy continues to benefit from this trend because it already has a large installed base of older plants that need upgrading, plus the control systems embedded in its CHP generators are highly suitable for flexible operation as part of a network of generation options. The existing subsidies supporting 'flexibilization' will be phased out at the end of November 2020, so management expects domestic orders for biogas systems to decline. We note that while revenues attributable to domestic sales of biogas-powered CHP systems totalled €22.1m in H119 compared with €19.4m in H118, reflecting strong order intake in FY18, contracted orders for biogas systems in Germany totalled €28.1m at the end of June 2019 compared with €53.1m a year previously. Management expects the likely reduction in domestic sales of biogas systems to be more than offset by a resurgence in demand for natural gas systems in Germany (see below), export activity, particularly in North America where it has invested in sales offices in Maryland and Ontario, and promotion of new hydrogen fuelled systems (see below).

Replacing coal and nuclear generation with natural gas

In May 2019, the final report from Germany's coal exit commission set out an advisory schedule for the country to phase out coal-fired power production by 2038 at the latest. The plan means that more than 40GW of electricity capacity will gradually be withdrawn from the market, in addition to more than 9GW of capacity loss because of the phasing out of nuclear power by the end of 2022. In total, this represents around 40% of the available base load capacity being withdrawn in the medium term, 22GW of which will be withdrawn by 2022. Gas-based CHP plants in the medium power range (50–1,000kW), all of which is covered by 2G Energy's product ranges, represent a solution for closing the immediate generation capacity shortfall. This is because 2G Energy's systems have a flexible output, complementing production from wind and solar power plants; they can provide a substitute for the heat provided by two-thirds of the coal plants being closed; they can be installed close to point of consumption, reducing investment in transmission and distribution grids; and their planning and construction time is substantially less than that for wind farms or utility-scale, gas-powered generation facilities. Since carbon dioxide emissions from natural gas are 40–50% lower than for hard coal and lignite, the transition to natural gas will help Germany achieve its 2020 target of reducing CO_2 emissions by 40% compared to 1990 levels. We note that, as the proportion of hydrogen and methane in the gas grid increases to meet renewable targets, 2G Energy's systems will be able to handle the transition without the need for costly upgrades.

Although the medium-term outlook for natural gas systems is favourable in Germany, this has yet to show in sales and contracted orders for the group. Demand for natural gas systems was severely affected during FY18 by uncertainty regarding the waiver of the EEG (Renewable Sources Energy Act) levy. Until the end of 2017, operators of CHP plants only had to pay 40% of the EEG levy (ie 6.9c/kWh) on self-generated electricity. This exemption terminated at end-2017. In December 2018 the exception was reintroduced, with the waiver applied retrospectively from 1 January 2018. Revenues from sales of natural gas CHP systems in Germany remained subdued during H119 (€6.9m vs €5.0m in H118) as these relate to orders placed in FY18. New order intake for domestic sales of natural gas CHP systems has yet to show an uptick related to reintroduction of the subsidy (€9.9m at end H119 vs €9.7m at end H118), but management notes that the level of enquiries indicates that order intake for this category should increase during H219.

Storing surplus renewable energy as hydrogen

Utility-scale battery energy storage systems are increasingly being proposed as a mechanism for addressing the imbalance between supply from renewable energy sources and demand. An alternative, which does not rely on finite supplies of lithium, cobalt and nickel, is to use hydrogen as the medium for energy storage, using surplus electricity to generate hydrogen by electrolysing water. In September 2018, 2G Energy received its first order for a CHP system powered by hydrogen. This was for a project realised together with the public utility of Haßfurt, where 2G Energy's CHP system is fuelled by hydrogen produced by a power-to-gas system that uses surplus electricity generated by a nearby wind park. In July 2019, 2G Energy received an order from Siemens for a similar system that will be installed in one of the world's largest solar parks, which is situated on the Arabian Peninsula. It will be used in a pilot project to test how surplus electricity generated by the solar park can be used in an electrolyser to create hydrogen, which can be stored and either used to generate electricity in 2G Energy's CHP system or utilised in transportation or industrial applications. If these pilot projects are successful, this could represent a major opportunity for 2G Energy because widespread deployment would require hydrogen to be stored in the gas grid, mixed with natural gas. This would preclude the deployment of most types of fuel cells for generating electricity, as these require high-purity hydrogen, whereas 2G Energy's CHP systems can run from hydrogen contaminated with other gases.

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.

Exhibit 1: Peer multiples

Name	Market cap (€m)	EV/Sales FY1 (x)	EV/Sales FY2 (x)	EV/EBITDA FY1 (x)	EV/EBITDA FY2 (x)	P/E FY1 (x)	P/E FY2 (x)	Revenue CAGR*
Ballard Power Systems	1,148	11.7	8.4	(48.4)	(277.7)	(36.9)	(70.6)	17.6%
Ceres Power Holdings	366	15.8	12.7	(36.0)	(38.3)	(45.9)	(44.4)	73.9%
Enertime	6	1.0	0.6	(12.3)	16.4	(10.1)	42.0	68.3%
FuelCell Energy	47	3.9	4.6	(9.1)	(24.1)	(0.1)	(0.7)	-24.1%
ITM Power	174	23.8	12.0	(24.7)	(18.7)	(19.9)	(19.3)	87.0%
Nordex	986	0.4	0.3	9.1	5.8	(31.0)	26.0	23.2%
Plug Power	619	4.4	3.4	(604.3)	45.0	(7.3)	(11.3)	32.4%
Redt Energy	12	3.1	0.3	(0.8)	(1.2)	(1.0)	(1.3)	149.1%
SFC Energy	155	2.5	2.1	30.3	16.9	137.7	39.2	12.6%
Vestas Wind Systems	14,663	1.1	1.0	8.9	7.6	20.0	15.9	11.9%
Renewable energy equipment mean		**6.8**	**4.5**	**16.1**	**11.7**	**78.8**	**30.8**	!
Briggs & Stratton Corp	229	0.3	0.3	5.3	4.2	1.3	1.1	3.3%
China Yuchai International	487	0.1	0.1	1.0	0.9	20.9	17.8	8.4%
DEUTZ	626	0.4	0.4	3.5	3.7	8.2	8.6	1.1%
Generac Holdings	4,588	2.7	2.6	13.5	12.9	16.8	16.0	5.5%
Honda Siel Power Products	139	1.1	1.0	8.5	7.8	240.2	203.9	9.5%
Conventional power generation equipment mean		**0.9**	**0.9**	**6.4**	**5.9**	**15.3**	**14.1**	**5.6%**
2G Energy	**163**	**0.7**	**0.6**	**7.9**	**6.9**	**15.4**	**13.1**	**8.9%**

Source: Refinitiv. Note: Grey shading indicates exclusion from mean. *Year 2 to year 0. Prices at 26 September 2019.

The share price has picked up from a low of €20.20 at the end of December 2018 as the reinstatement of the EEG levy waiver on electricity has renewed interest in natural gas-powered CHP systems in Germany. At the current level, a comparison against companies manufacturing conventional power generation equipment shows 2G Energy trading broadly in line with the mean multiples of our sample, ie at a small discount to the sample mean for year one and year two EV/Sales multiples, at a small premium to the sample mean for year one and year two EV/EBITDA multiples and a discount to the sample mean with regards to the year two P/E multiple. The consensus estimates show 2G Energy's revenues growing more quickly than the sample average, potentially justifying multiples that are at a premium to the sample mean on all metrics and indicating scope for further share price improvement.

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