

2G Energy

Supporting the global energy transition

2G Energy has reported record first half revenues in H121. Customers in Germany and elsewhere are continuing to invest in combined heat and power (CHP) systems that help cut electricity costs, reduce dependence on overstretched electricity grids and address the variability of output from wind and solar sources. Importantly, 2G's CHP systems can be upgraded to run on hydrogen, future proofing customers' investment as the decarbonisation of the power generation sector accelerates.

Record first half revenues

Group sales rose by €21.3m year-on-year during H121 to a record €106.9m, with €4.1m of the increase attributable to sales from the HJS Motoren subsidiary, which were consolidated in the group total for the first time. However, production output was held back by measures introduced to prevent infection from spreading across the workforce and by supply chain shortages, which necessitated constant rescheduling to meet customer schedules. As a result, total operating revenue, which includes increases in inventories, fell by 3.4%. EBIT was stable at €2.3m, with EBIT margins (as a percentage of net sales) decreasing by 0.6pp to 2.1%.

Management reiterates FY21 guidance

Noting a 7% y-o-y increase in new order intake for systems during H121 to €91.7m, management has reiterated the FY21 guidance given in June of €250–260m revenues at a 6.0–7.5% EBIT margin. Management adjusted its longer-term target, raising its 2024 revenue target to €330m (previously €310–315m) to reflect intensifying international activity, but taking EBIT margin guidance back to 10% (previously 'above 10%') in acknowledgement of price increases for many raw materials and components which it may not be able to offset with efficiency gains.

Valuation: Premium for fuel-agnostic approach

2G Energy's product portfolio of CHP systems positions it to benefit from the transition from coal- and nuclear-powered electricity generation to increasing use of wind and solar sources augmented by natural gas to balance supply and demand. In the longer term, 2G has proven technology to address the potential switch from natural gas to hydrogen. However, there will still be significant demand for 2G's biogas and natural gas-powered systems if adoption of hydrogen as an energy storage medium is delayed or derailed. We believe that this fuel-agnostic approach justifies 2G's share price, currently trading on earnings multiples towards the upper end of our sample of companies offering conventional power generation equipment.

Consensus estimates

Year end	Revenue (€m)	PBT (€m)	EPS (€)	DPS (€)	P/E (x)	Yield (%)
12/19	236.4	15.3	2.33	0.45	38.0	0.5
12/20	246.7	16.5	2.70	0.45	32.8	0.5
12/21e	261.0	18.2	2.76	0.50	32.5	0.6
12/22e	284.9	22.1	3.43	0.71	26.1	0.8

Source: Refinitiv

Industrials

17 September 2021

Price €88.50
Market cap €397m

Share price graph



Share details

Code 2GB
Listing Deutsche Börse Scale
Shares in issue 4.5m
Net cash at end June 2021 €5.6m

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 and nuclear power stations are closed down.
- Decentralised CHP solutions reduce CO₂ emissions by improving conversion efficiency.
- Hydrogen-fuelled systems offer mechanism for storing surplus power from renewables.

Bear

- Uptake affected by green regulation.
- Economics depend on spark gap.
- Low free float (47.7%).

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H121 results show sales recovery

Record group sales during H121

Group sales rose by €21.3m year-on-year during H121 to a record €106.9m, with €4.1m of the increase attributable to sales from the HJS Motoren subsidiary, which were consolidated in the group total for the first time. Sales of new CHP systems (49% of total sales) grew by 36% in Germany and 23% outside Germany. Sales from services (51% of total sales) grew by 25% in Germany and 11% elsewhere. Exports accounted for 33.7% of the group total (36.0% in H120).

While the coronavirus pandemic had minimal impact on 2G's ability to manufacture CHP systems during H120 and demand was unaffected, travel restrictions prevented 2G from completing the installation and commissioning of some systems as planned. These travel restrictions began to ease during H220, enabling the group to complete delayed deliveries. The pandemic continued to affect business during H121, but in a different way. Production output was held back by the measures introduced to prevent infection from spreading across the workforce. During Q221, this effect was compounded by supply chain shortages which necessitated constant rescheduling to meet customer schedules. As a result, the increase in work in progress and finished goods was €25.1m lower year-on-year and total operating revenue, which includes inventory increases, fell by 3.4% (6.9% after adjusting for the contribution from HJS).

Cost of materials as a proportion of total operating revenue decreased by 4.4pp to 65.1%. While part of the reduction was attributable to the distorting impact of changes in inventory, management notes that around 1pp was attributable to the transfer of former temporary staff to permanent employment. Personnel costs rose by €3.2m (14.5%), €1.1m of which was attributable to the HJS consolidation, and other operating expenses increased by €1.2m, reflecting higher bonuses related to stronger sales, hardware and software costs supporting employees working from home and the HJS consolidation. EBIT was stable at €2.3m, with EBIT margins (as a percentage of net sales) decreasing slightly, by 0.6pp to 2.1%.

Balance sheet further strengthened by January placing

Net cash rose by €6.9m during H121 to €5.6m at the period end. In January 2021, the group raised €5.3m (gross) through a placing at €95.60/share. The funds raised are being used to provide additional liquidity to accommodate the working capital requirements of individual major projects. Cash flow from operating activities was significantly better than the prior year period (€5.1m inflow versus €1.0m outflow) as the H120 result included an unusually large increase in work-in-progress and completed goods relating to the group's inability to install and commission some systems, which was only partially offset by higher levels of advance payments for new plants and full maintenance contracts. H121 also benefited from a €5.0m increase in trade payables. Capex totalled €2.1m and the group invested €1.0m in acquiring consolidated companies. (We assume this relates to the HJS consolidation, although the consideration payable for acquiring the outstanding 50% stake in this subsidiary was not disclosed.)

HJS consolidation

HJS specializes in the maintenance and repair of combined heat and power plants with gas engines. The group acquired an initial 50% stake in HJS in 2018 and acquired the remaining 50% in June 2021. HJS generated €7.3m sales in FY20, with an EBIT margin in the double-digit range. Since HJS currently services around 400 systems, most of which are not from 2G and whose motors will reach the end of their technical service life in the next few years, the transaction presents significant opportunities for cross-selling. In the medium term, management expects HJS to generate €10–15m in sales with an EBIT margin above 10%.

Favourable outlook supported by new order intake

FY21 guidance confirmed

New order intake for systems grew by c 7% y-o-y during H121 to €91.7m, of which 49% was attributable to business outside Germany. Following the acquisition of the outstanding stake in HJS in June, management raised FY21 guidance from €245–260m to €250–260m. However, the incremental depreciation and amortisation associated with the acquisition was expected to offset the additional EBIT contribution, so the earnings guidance was unchanged at 6.0–7.5%. Management has recently reiterated this guidance.

However, management has adjusted its longer-term guidance. Prior to the HJS transaction, it was targeting €300m revenues in 2024 at an EBIT margin of 10%. Immediately following the transaction, it raised 2024 guidance to €310–315m revenues with an EBIT margin above 10%. It has recently adjusted this guidance, increasing the revenue target to €330m to reflect intensifying international activity, but taking the EBIT margin guidance back to 10% in acknowledgement of price increases for many raw materials and components that it may not be able to offset with efficiency gains through its 'Lead-to-Lean' programme.

Management has also introduced its 2026 target, which is for c €400m revenues with an 8.5–10% EBIT margin. This assumes that the energy transition in Central Europe, particularly Germany, will drive substantial growth in demand for base load and hydrogen-capable power plants that can be supplied at short notice and that the group is successful in further increasing its penetration of international markets.

European energy transition accelerating

In July 2021, the European Commission launched the first tranche of its 'Fit for 55' programme of measures that support Europe's climate policy framework and put the EU on track for a 55% reduction in carbon emissions by 2030 and net-zero emissions by 2050. The measures include an amendment to the Renewable Energy Directive, which sets a new target of 40% (previously 32%) of energy used to be derived from renewables by 2030. They also include an amendment to the Energy Efficiency Directive, raising the annual target at EU level for reducing energy consumption by 2030 from 32.5% to 36%. The Fit for 55 programme accelerates the transition from fossil fuel-powered generation to renewable generation.

2G's CHP systems complement solar- and wind-powered generation

2G's CHP systems fit well into this transition. Since solar and wind generation are both inherently intermittent, any increase in renewable capacity to replace coal-powered plants needs to be accompanied by additional generation capacity that can be turned on and off as required to fill the gap between renewable energy supply and consumer demand. There also needs to be investment in energy storage. At present, natural gas is the main option for generating additional capacity because it is less polluting than coal and does not face the same consumer backlash as nuclear-powered capacity. Unlike centralised natural gas (or coal or nuclear) power stations, 2G's CHP systems can be turned on and off very quickly and the output adjusted rapidly to match demand. Moreover, the systems are very efficient, mainly because the heat energy released when making electricity is used to provide hot water and heating for premises, but also because the systems can be installed close to the point of consumption, reducing transmission losses. In addition, the planning and construction time associated with CHP projects is substantially less than for wind farms or utility-scale, gas-powered generation facilities, a factor which is becoming increasingly relevant as the decarbonisation timescale is compressed.

2G's natural gas CHPs are hydrogen-ready

Furthermore, 2G's CHP systems can run on natural gas right now and be converted to run on hydrogen in the future. This is significant because governments are increasingly introducing policies intended to encourage the use of hydrogen so they can meet their obligations to achieve carbon neutrality. For example, in July 2020 the EU published 'A hydrogen strategy for a climate-neutral Europe'. This document sees hydrogen playing a key role in achieving decarbonisation of EU energy consumption by 2050. As discussed in our report, [The hydrogen economy: Decarbonising the final 20%](#), the roadmap envisages progressive uptake of hydrogen, leading to a repurposing of parts of the existing natural gas infrastructure to transport hydrogen. The hydrogen gas will primarily be used to replace fossil fuels in some carbon-intensive industrial processes and to power fuel cell trucks, buses and other heavy vehicles for which battery power is not suitable. The gas will also be available for power generation, supplementing the electricity generated from intermittent renewable sources. In a fully decarbonised scenario, this hydrogen will have been produced by using surplus electricity from renewable sources to electrolyse water and then stored until required. Hydrogen presents a useful alternative to utility-scale battery energy storage systems because it can store energy for a period of several months, while batteries can only provide storage for up to a week.

2G Energy's hydrogen CHPs give comparable performance to those operating on natural gas and are offered at similar prices. Earlier this year, management committed to converting the company's natural gas CHP systems to run on up to 100% hydrogen after approximately 30,000 operating hours as part of the regular maintenance schedule. This policy is very attractive for operators because it eliminates the risk of stranded investments.

Valuation – premium for fuel agnostic approach

Exhibit 1: Peer multiples comparison

Name	Performance ytd (%)	Market cap (€m)	EV/Sales 1FY (x)	EV/Sales 2FY (x)	EV/EBITDA 1FY (x)	EV/EBITDA 2FY (x)	PE 1FY (x)	PE 2FY (x)
AFC Energy	(33.4)	455	219.5	79.5	(62.6)	(59.8)	N/A!	N/A
Ballard Power Systems	(35.6)	3,827	31.0	22.0	(49.4)	(60.4)	(61.2)	(74.0)
Ceres Power Holdings	(12.0)	2,586	66.5	58.2	(157.1)	(159.8)	(132.2)	(118.1)
ITM Power	(20.4)	2,645	86.7	30.1	(139.1)	(765.0)	(102.4)	(272.1)
Plug Power	(27.4)	11,988	20.9	13.7	(80.4)	434.4	(55.9)	(110.9)
Bloom Energy	(32.6)	2,844	4.3	3.5	67.8	30.3	(89.4)	91.2
Doosan Fuel Cell	(4.5)	2,635	7.0	4.0	88.2	40.3	216.9	79.0
McPhy Energy	(49.4)	484	20.8	12.0	(25.7)	(20.6)	(32.7)	(28.2)
Nel	(54.2)	1,900	21.0	12.9	(42.2)	(64.9)	(20.2)	(48.9)
Powercell Sweden	(46.8)	889	67.1	33.5	(94.6)	(642.5)	(97.4)	(144.8)
SFC Energy	81.3	419	5.9	4.0	80.1	33.2	(304.2)	95.7
Hydrogen power generation equipment mean			27.2	18.2	78.7	134.5	216.9	88.6
China Yuchai International	(17.6)	466	0.1	0.1	1.8	1.4	8.9	5.6
Cummins	3.2	28,532	1.5	1.4	9.4	8.4	14.4	12.3
DEUTZ	62.5	1,002	0.7	0.6	8.5	4.9	35.9	10.3
Generac Holdings	94.2	23,619	7.6	6.5	30.9	25.2	43.7	36.7
Conventional generation equipment mean			2.5	2.1	12.6	10.0	25.7	16.2
2G Energy	(1.4)	397	1.5	1.4	17.0	14.3	32.5	26.1

Source: Refinitiv. Note: Grey shading indicates exclusion from mean. Prices at 16 September 2021.

A comparison of prospective peer multiples for companies manufacturing fuel cells or electrolyser 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. Like the other hydrogen-related stocks, 2G Energy's share price benefited from investor interest in the sector during 2020, doubling in value during the year. Unlike many of the others, which have significantly reduced in value since the start of 2021 as investors have realised that many of the valuations were [over-hyped](#), 2G Energy's share price has been relatively stable. We believe that 2G Energy should

be more resilient than many of the other stocks in our sample to any downturn in investor sentiment regarding the sector because it provides a route for participating in the potential growth in the global hydrogen economy without technology or execution risk. Moreover, there will still be significant demand for 2G's natural gas and biogas-powered systems if the transition to a hydrogen economy is delayed or derailed.

At the current level, a comparison with companies manufacturing conventional power generation equipment shows 2G Energy trading at a discount to the sample mean for prospective EV/sales multiples but at a premium to the sample mean for prospective EV/EBITDA and P/E multiples. We believe that 2G's fuel-agnostic approach justifies multiples that are at the upper end of our sample because it has a proven range of energy generation systems that are able to use natural gas to address the predicted shortfall in generation capacity when coal- and nuclear-powered plants are turned off in Germany and elsewhere. These systems can then be converted to use hydrogen during the transition to a fully decarbonised power generation environment. This is in contrast to manufacturers of conventional power generation equipment. These have started to take the steps needed to ensure they have a place in fully decarbonised energy generation. For example, Cummins acquired fuel cell manufacturer Hydrogenics in September 2019, while DEUTZ acquired German battery specialist Futavis in 2019 and Generac offers a range of combined solar and storage systems for homeowners. However, these activities are complementary to the companies' core product ranges, which would be left as 'stranded assets' should diesel fuel become unavailable.

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