

Photon Energy

Buy

Initiation of coverage

Price: CZK 54

Price target: CZK 84

Discover a great solar growth proxy

We initiate on Photon Energy with a BUY rating and a 12M price target (PT) of CZK 84/share, implying 56% upside. Photon is an integrated solar downstream company, achieving most of its earnings from green power generation. Founded in 2008 and run by its co-founders, the company offers a wide range of services to its customers, from project development, engineering and building, to operation and maintenance. While the majority of Photon's generation earnings have come from regulated schemes over the past decade, this year, Photon decided to opt out of the schemes where it could, switching to merchant operations, and now plans to focus primarily on the merchant business model, with two merchant power plants connected to the grid in Hungary already over the past six months. Its busy pipeline of 777MW and 2024E goal of 600MW of its own generation capacity, up from the current 92MW, coupled with the power prices remaining at very attractive levels, change the company's earnings prospects dramatically vs. a few years ago, with the EBITDA growing at a 28% CAGR over the next three years, on our estimates, and potential upside coming from its water treatment business and promising, well-chosen equity investments. Photon is trading at our 2022-24 EV/EBITDAs of 10.1-12.4x, 18% below its peer group, and we believe the broader market is yet to discover the company, driving its valuation closer to its peers, given its higher growth prospects.

Currently, Photon is mainly a play on higher power prices and new capacity additions, in our view. Photon targets 600MW of its own capacity by 2024E, up from 92MW currently. By running 82% of its capacity (May) at the merchant operations and building merchant solar capacity in the future, its generation arm's EBITDA should more than double over the next three years, on our numbers, driven by new merchant additions and much higher realised prices vs. previous years, thanks to switching to merchant operations this year.

Other downstream segments should also perform well, in our view. With the growing size of its own portfolio and supported by the strong solar growth, the company's Operations & Maintenance, Engineering and Technology segments should deliver hefty EBITDA growth. Combined, we see Photon's fivefold EBITDA increase guidance by 2024E, vs. 2020, as credible.

ESG friendly and very transparent. Photon was awarded a solid ESG rating recently and, despite its relatively small size, the company has invested heavily in its very granular disclosure, which is even better than those of much larger utilities. We strongly appreciate this and believe the company stands ready to scale up and reach out to the market, with little additional costs.

Not only solar. Photon's water treatment business, with its unique technology, which is being tested currently, presents only upside to our numbers. On top of this, the company invested in two promising power companies, RayGen (solar power storage/solar baseload) and Lerta (power tech), with very likely upside potential for our valuation.

Valuation and risks. Our 70:30 weighted DCF and peers valuation generate a 12M PT of CZK 84/share, or 56% upside. The main risks for our forecasts are: CEE power price levels; government interventions; execution risks; and, among others, the supply chain issue in the PV industry.

Expected events

2Q22 results	11 August
3Q22 results	10 November

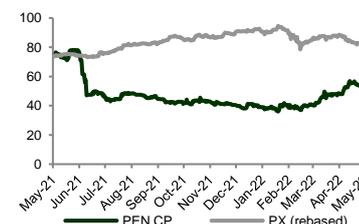
Key data

Market cap	EUR 132m
Free float	23%
3M ADTV	CZK 1m
Shares outstanding	56.3m
Major Shareholder	Management/co-founders (71%)
Bloomberg Code	PEN CP
PX Index	1,308

Price performance

52-w range	CZK 36-78
52-w performance	-27%
Relative performance	-40%

Photon 12M share price performance



Year	Sales (EUR m)	EBITDA (EUR m)	Net profit (EUR m)	EPS (EUR)	EPS growth	P/E (x)	EV/ EBITDA	DPS (EUR)	Dividend yield (%)
2019	30.4	7.9	-0.7	-0.01	n.m.	n.m.	19.0	0.00	0.0%
2020	28.6	8.4	-8.7	-0.15	n.m.	n.m.	30.2	0.00	0.0%
2021	36.8	9.6	-6.4	-0.11	n.m.	n.m.	17.8	0.00	0.0%
2022E	63.6	19.5	0.1	0.00	n.m.	1,222.9	12.4	0.00	0.0%
2023E	80.8	29.7	5.5	0.10	5729%	21.0	12.2	0.00	0.0%
2024E	93.8	41.0	16.4	0.29	200%	7.0	10.1	0.00	0.0%

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Contents

Company snapshot – BUY, PT CZK 84.....	3
Investment case: regulated turning merchant	4
Ambitious growth targets, with hands-on experience.....	6
Valuation: BUY, PT CZK 84, 56% upside	12
Risks	14
Company overview	15
ESG rating	18
Financials	20
Important disclosures	22

Closing Prices as of 24 May 2022

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Company snapshot – BUY, PT CZK 84

Photon Energy

BUY

Bloomberg ticker	PEN CP
Closing price (CZK)	54
Price Target (CZK)	84
Upside to PT	56%
Shares outstanding (m)	56.3
MCAP (CZK m)	3,051
Free float	23%
ADTV (CZK m)	0.97
52 Week Range (CZK)	36-78
52 Week Performance	-27%
52 Relative Performance	-40%



COMPANY DESCRIPTION

Photon Energy Group, founded in 2008 and based in the Netherlands, is a vertically-integrated utility in the downstream segment of the photovoltaic industry. Its business model covers the whole life cycle of a power plant, from development through to electricity generation, to decommissioning. Currently, Photon operates 92MW of its own PV capacity, in CEE and Australia, and maintains more than 280MW of solar plants, mainly in Europe. Photon is also active in the water treatment business, is awaiting the results of its R&D currently, and holds equity stakes in two promising power companies: 1) Australian developer of solar battery storage and generation RayGen; and 2) a Polish energy-tech start-up, Lerta. The shareholder structure is composed of two main players, namely Solar Future (Michael Gartner, CTO) and Solar Power to the People (Georg Hotar, CEO), with 36.3% and 34.7% shares, respectively. Roughly 23% of the shares are in free float and 6.2% are treasury shares.

RATIOS

PER SHARE RATIOS	2019	2020	2021	2022E	2023E	2024E	VALUATION RATIOS	2019	2020	2021	2022E	2023E	2024E
EPS	-0.01	-0.15	-0.11	0.00	0.10	0.29	P/E	n.m.	n.m.	n.m.	1,222.9x	21.0x	7.0x
CEPS	0.11	0.11	0.11	0.34	0.42	0.50	P/CF	13.6x	28.4x	13.1x	6.1x	4.9x	4.1x
BVPS	0.67	0.71	0.92	0.92	1.01	1.31	P/B	2.2x	4.2x	1.6x	2.2x	2.0x	1.6x
DPS	0.00	0.00	0.00	0.00	0.00	0.00	EV/EBITDA	19.0x	30.2x	17.8x	12.4x	12.2x	10.1x
EV/Sales	5.0x	8.9x	4.6x	3.8x	4.5x	4.4x	EV/Sales	131.4x	1,975.9x	(157.1)x	30.1x	25.9x	20.6x
EV/EBIT	19.0x	30.2x	17.8x	12.4x	12.2x	10.1x	EV/EBIT	5.0x	8.9x	4.6x	3.8x	4.5x	4.4x
Capex/depreciation	2.9x	2.2x	0.8x	2.6x	6.5x	5.9x	Cash flow from ops, EUR m	6.2	6.0	6.2	18.9	23.5	28.3
Capex/net fixed assets	0.19x	0.14x	0.07x	0.20x	0.44x	0.37x	EV, CZK m	3,932	6,737	4,546	6,441	9,646	11,033
Op. cash flow/capex	0.3x	0.5x	1.3x	0.7x	0.2x	0.2x	FCF, EUR m	-8	-14	-8	-10	-69	-79
EBITDA margin	26.2%	29.5%	26.1%	30.6%	36.8%	43.7%	FCF yield	-0.4%	-0.3%	-0.4%	-0.3%	-2.3%	-2.6%
EBIT margin	3.8%	0.5%	-3.0%	12.6%	17.3%	21.5%	Dividend yield	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net margin	-2.4%	-30.4%	-17.5%	0.1%	6.8%	17.5%							
ROE	-22.3%	-14.0%	0.2%	10.0%	25.1%								
Net debt/(cash) to equity	1.8x	2.1x	1.7x	2.5x	4.3x	4.1x							
Net debt/EBITDA	8.5x	10.0x	9.3x	6.5x	8.3x	7.3x							

COMPANY FINANCIALS

INCOME STATEMENT, EUR m	2019	2020	2021	2022E	2023E	2024E	BALANCE SHEET, EUR m	2019	2020	2021	2022E	2023E	2024E
Revenues	30.4	28.6	36.8	63.6	80.8	93.8	Current assets	28.4	23.9	54.2	54.5	58.3	61.4
COGS & opex	-22.4	-20.2	-27.2	-44.1	-51.1	-52.8	Cash & Equivalents	12.4	9.9	32.5	28.4	29.4	30.4
EBIT	1.1	0.1	-1.1	8.0	14.0	20.1	Trade receivables	10.4	6.1	9.1	11.9	13.6	15.0
Depreciation	6.8	8.3	10.7	11.4	15.7	20.8	Inventories	1.2	1.0	2.2	3.8	4.9	5.6
EBITDA	7.9	8.4	9.6	19.5	29.7	41.0	Other	4.3	6.8	10.4	10.4	10.4	10.4
Electricity Generation	11.6	12.9	17.2	25.2	36.9	47.0	Non-current assets	108.7	135.1	142.5	160.5	246.2	348.9
O&M	-0.6	-0.1	0.2	0.3	0.8	1.5	Tangible	102.0	126.3	127.5	145.5	231.2	333.9
Engineering	6.6	9.1	-2.5	0.8	1.3	1.4	Intangible	0.9	1.3	0.8	0.8	0.8	0.8
Technology	0.0	0.5	1.5	1.7	2.3	3.3	Other	5.7	7.5	14.1	14.1	14.1	14.1
Other	-0.3	-1.6	-6.1	-7.6	-10.8	-12.0	Total assets	137.0	158.9	196.6	215.0	304.5	410.3
Financial income/(expense) & other	-4.4	-6.4	-5.2	-10.2	-17.3	-19.5	Current liabilities	12.3	15.2	34.0	26.5	28.6	30.4
Profit before Tax	1.0	-6.5	-5.9	-1.3	5.3	17.4	ST debt	3.7	6.0	28.5	19.4	20.4	21.4
Income tax due/deferred	-1.7	-2.2	-0.5	1.4	0.2	-1.0	Trade payables	7.4	7.2	4.5	6.2	7.2	8.0
Profit/loss	-0.7	-8.7	-6.4	0.1	5.5	16.4	Other	1.2	1.9	1.0	1.0	1.0	1.0

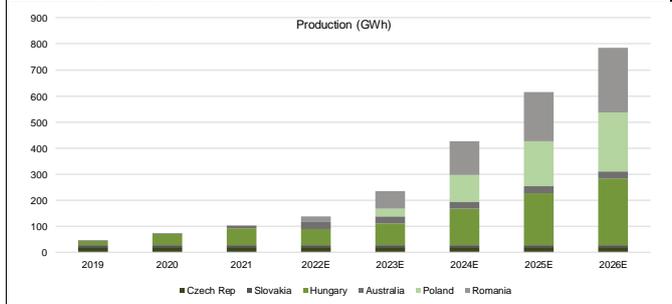
CASH FLOW, EUR m	2019	2020	2021	2022E	2023E	2024E
CF from Operations	6.2	6.0	6.2	18.9	23.5	28.3
Thereof depreciation	6.8	8.3	10.7	11.4	15.7	20.8
Thereof changes in w/c	0.7	-2.4	-5.0	-2.7	-1.7	-1.3
CF from Investments	-14.4	-20.2	-14.2	-28.6	-92.8	-106.8
Thereof CAPEX	-19.7	-18.3	-8.6	-29.5	-101.4	-123.5
CF from Financing	11.7	12.1	30.6	10.5	64.6	68.2

Non-current liabilities	2019	2020	2021	2022E	2023E	2024E
LT debt	76.4	90.9	98.3	124.0	293.6	293.6
Other	10.4	12.7	12.8	12.8	-74.8	12.8
Total liabilities	99.2	118.8	145.1	163.3	247.4	336.8
Minority interest	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
Shareholders' equity	37.8	40.1	51.5	51.6	57.1	73.5
Total liabilities and equity	137.0	158.9	196.6	215.0	304.5	410.3
Net Debt	67.3	84.5	89.1	127.3	247.6	299.6
Change in Net debt	14.1	17.2	4.6	38.2	120.3	52.1

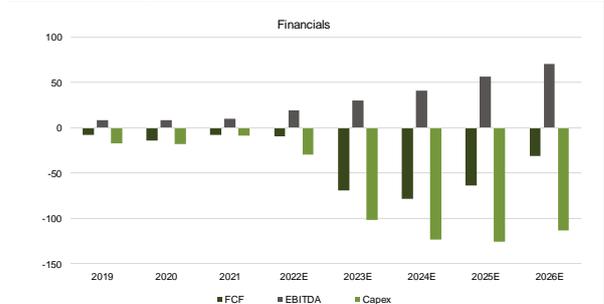
OPERATIONS	2019	2020	2021	2022E	2023E	2024E
Generation capacity, MW	51.7	74.7	90.5	133.1	246.2	361.8
Growth (yoy)	103%	45%	21%	47%	85%	47%
Czech Rep	15	15	15	15	15	15
Slovakia	10	10	10	10	10	10
Hungary	26	49	51	53	121	116
Australia	0	0	15	20	15	15
Poland	0	0	0	0	28	98
Romania	0	0	0	35	58	108

MACRO ASSUMPTIONS	2019	2020	2021	2022E	2023E	2024E
Inflation, EU	1.2%	0.3%	1.5%	6.3%	2.8%	2.8%
Baseload price (EUR/MWh)	49	46	89	200	165	110
Generation volume, GWh	44	70	103	137	235	425
Growth (yoy)	54%	60%	48%	32%	72%	81%

Generation by country forecast



FCF, EBITDA and capex forecasts



Investment case: regulated turning merchant

We initiate on Photon Energy with a BUY rating and a 12M price target (PT) of CZK 84/share, implying 56% upside. Photon is an integrated solar downstream company, generating most of its earnings from green power generation. Founded in 2008 and run by its co-founders, who are also its largest shareholders today, the company offers a wide range of services to its customers, from project development, engineering and building, to operating and maintenance. While the majority of Photon's generation earnings have come from regulated schemes over the past decade, this year, Photon decided to opt out of the schemes where it could, switching to merchant operations, and now plans to focus primarily on the merchant business model, with two merchant power plants connected to the grid in Hungary already over the past six months. Its busy pipeline of 777MW and its 2024E goal of 600MW of its own generation capacity, up from the current 92MW, coupled with the power prices remaining at very attractive levels, change the company's earnings prospects dramatically vs. a few years ago, with the EBITDA growing at a 28% CAGR over the next three years (2022-24E), on our estimates, and potential upside coming from its water treatment business and promising, well-chosen equity investments. Photon trades at our 2022-24 EV/EBITDAs of 10.1-12.4x, 18% below its peer group. While the company does not plan to pay out a dividend in the near future, focusing on growth instead, we believe that the discount vs. its peer group is unjustified and, with the company not known by the broader market yet, but growing faster and offering merchant pricing as an attractive inflation proxy, we expect this discount to narrow.

Photon is an integrated solar downstream company, operating its own proprietary portfolio of 92MW, in CEE and Australia, and providing services to external customers worldwide, from project development, designing and building power plants, to the operation and maintenance of the commissioned assets. Apart from the solar business, the company has been increasing its focus on a water and soil treatment business recently, and also invested, through equity stakes, in power companies RayGen and Lerta. The company was founded in 2008 and its shares are listed in Prague, Warsaw and Frankfurt.

Ambitious, but achievable guidance. Operating in the fastest-growing onshore power generation segment, solar downstream, Photon has very ambitious operational and strategic goals. This year alone, the company guides for 88% and 79% EBITDA and revenues growth, respectively. In 2024E, Photon sees the EBITDA at 5x the 2020 level, driven by new capacity additions, higher power prices, and ongoing revenue growth and profitability improvements across its other-than-generation solar segments. We are slightly below this target, assuming slightly lower capacity additions, to stay conservative. Any potential EBITDA from the water treatment business or income from its equity investments would present more upside for the company's guidance and our valuation.

Merchant solar generator. As most of its competitors, Photon has operated under regulated remuneration schemes over the past decade. Given the elevated power prices and its improved liquidity position, however, the company has decided to opt out of such schemes where it can (currently Hungary) this year and started building plants on a merchant basis only. By end-2021, the company operated only 16MW out of its 90.5MW portfolio on a merchant basis. As of May this year, 74.5MW out of 91.9MW were selling at merchant prices. Given our power price outlook in Europe and Australia for the next decade, and Photon's average LCOE being around 3x lower vs. the current German wholesale price, the company looks to be well-positioned for the unprecedented growth, in our view, even with our long-term power forecasts falling below EUR 100/MWh again. There are still increasing risks even for merchant producers, facing potential price caps, windfall taxation or other measures. However, given Photon's broad reach and the possibility of returning to regulated earnings, the downside vs. our estimates remains limited, for now.

Very good ESG and transparency. Recently, the company has been awarded a rating of "very good" – the second highest rating possible – with the score of 75/100, issued by imug | rating. Moreover, we note that, despite its EUR 132m market cap, the company has invested heavily in its disclosure, which is at a very good level, in our view, its management is transparent, and the company is well-prepared for scaling up its business and growing its interaction with the capital markets, with a strong investor relations team.

Water treatment business and equity investments. While we focus on the solar expansion in this report, we note that the company's water treatment business has large potential to grow. We prefer to wait for the R&D results, most likely to be delivered this year from Australia, but believe there is only upside for our numbers, which do not reflect the potential earnings coming from new technologies yet. When operations pick up speed, most likely after 2023E-onwards, in our view, we expect the segment to generate steady, utility-type earnings, but we also cannot rule out the company monetising its know-how at higher, tech-like multiples. Similarly, the RayGen investment looks very interesting to us (solar battery storage/solar baseload), as does Lerta, which provides the company with deeper knowledge about power trading in the region.

Valuation yields 56% upside. We use a DCF model as our primary valuation tool (a 70% weight), as we believe it better reflects the company's strategy and the decision to turn to merchant pricing fully in the future. Our DCF generates a 12M PT of CZK 86/share (58% upside). In our peer valuation (a 30% weight), we use EV/EBITDA only, given the high volatility of the sector's net earnings, given its high growth outlook. Our 2022-24E EV/EBITDAs of 10.1-12.4x trade, on average, 18% lower vs. the peer group. This implies 50% upside for Photon, at CZK 81/share. Our weighted 12M PT of CZK 84/share implies 56% upside.

As we believe Photon is likely to attract interest also in Poland (Warsaw), Germany (Frankfurt) and other markets, we also present our PLN (15.7/share) and EUR (3.30/share) PTs. We note that the stock is listed in Prague, Warsaw and Frankfurt.

Risks. As shown in the past and even more importantly today, we believe the main risk for Photon's story is government intervention in the regulatory schemes, or intervention in the wholesale power prices. Any form of caps, new taxes or similar measures could hurt Photon. The company's growth targets are very ambitious and, while we believe it has the means to achieve them, the risks related to supply chain issues, third parties and their execution, or ongoing inflation could delay the pipeline, in our view. Another risk for our valuation, to both the upside and downside, is the power price outlook – today and in the future, on our estimates, the majority of the EBITDA is generated by the Electricity Generation segment and, although growing, the more stable, service-like segment's EBITDA contributions are still miniscule. Therefore, the risks stem mainly from the power market. Separately, despite being traded on three stock exchanges (Prague, Warsaw and Frankfurt), the stock is quite illiquid, at only a 3M ADTV of EUR 0.8m, all three exchanges combined.

Ambitious growth targets, with hands-on experience

Exposed to the fastest growing energy business, and entering promising regions

According to various consultant groups and energy agencies, as well as the EU's current energy transformation plan, the solar segment will be the highest-growing category in the utilities sector in the coming decades, e.g., the International Renewable Energy Agency (IRENA) expects the PV capacity to double in 2021-25E, before growing at the same pace by 2030E. Moreover, while based in the Netherlands, Photon's exposure to CEE (namely Romania, Poland and Hungary as the main pipeline targets, where the solar market is still underinvested vs. western Europe) looks very favourable for the company's future growth, in our view. Coupled with its experience and bullish plans in Australia, where solar companies also enjoy good support from the government, we believe that Photon is very well-positioned to expand and deliver on its targets.

We note that Photon no longer plans to build, through the Electricity Generation arm, its business on support schemes, as its LCOE is well below merchant pricing, the company is liquid enough to finance its current pipeline and it can borrow at sufficiently low costs for its coming expansion plans, we estimate, except for the 300MW RayGen project, whose financing, equity structure and full delivery year are yet to be decided. We believe investors are likely to favour this approach, with the risk of regulatory changes being mitigated. The EU and CEE countries' funds for the block's energy transition are expected, by management, to support the company only indirectly, with the O&M, Engineering and Technology segments growing with their customers, which we expect to use the funds in all the countries in which Photon is present.

Current power price outlook exceeds Photon's LCOEs significantly

EUR/MWh	Spot price (5 May)	2023E forward	Current Photon's LCOE
			ex. balancing
Romania	206	219	56
Poland	139	205	61
Hungary	208	225	59
Czech Republic	190	216	57
Slovakia	194	219	57
Australia	131	n.a.	n.a.

Source: Company data, EEX, WOOD Research

The current expansion plans target Romania, Poland and Australia, with more capacity potential in Hungary. Photon is not planning any new additions in the Czech Republic and Slovakia in the foreseeable future, although other market players are already preparing for new expansion waves there, despite both countries, in the past and recently, intervening in the support schemes and upsetting investors. This should drive Photon's other-than-generation revenues in both countries, in our view. With Photon's current capacity in the Czech Republic and Slovakia expected to end its life within this decade, or in the early-2030s, on our estimates, we believe the company is likely to reassess what to do with the projects and the real estate later, outside our valuation period.

In Romania, where Photon has 5.7MW of ready-to-build projects currently, 115MW of projects in advanced development and another 105MW of early development and the feasibility stage (we model 35MW to be built by the year-end), the country is still a long way from achieving its current 2030E targets, with more than 3.5GW of PV to be connected to the grid by 2030E (target 5.1GW). Given Photon's current focus on the country, the pipeline mentioned above and almost no additions by the competition in the country last year, we believe that the company is ahead of its peers, and its Romanian capacity plans could even have more upside vs. the current guidance. Romania is also more attractive in terms of irradiation and, therefore, based on our power price outlook and the higher expected utilisation of the plants, the returns there should be higher than those of Central Europe, as the capex is similar and the real estate is cheaper, on our estimates.

In Poland, the long-term energy policy and its PV targets have been set, but we expect changes in the current policy, should there be no significant changes in the EU's ETS scheme. The country has seen unprecedented growth in its PV capacity in the past two years, growing more than tenfold, to 9.4GW, thanks largely to government subsidies, and the unambitious 2030E PV target has been exceeded already. However, in our view, Poland cannot stop here, if it seriously plans to reduce its emissions and transform its energy sector away from ever-more expensive fossil fuels; and, given the recent developments, we believe it does, despite the renewed discussions on the importance of local lignite and coal, reacting to Russia's actions. The country has significant exposure to hard coal and lignite and, with no alternative energy source today, such as nuclear or gas, replacing the old coal blocks in years (gas), if not decades (nuclear), in our view, the current outlook for power prices in the country, which is still a power island, remains above the German power prices in the long term. Moreover, despite many claims to be solving the issue, Poland still does not have a new law that would allow the development of new onshore wind capacity, and the first offshore wind project is planned for 2025/2026E. In Poland,

Photon can participate in the PV auctions, which take place by the year-end. We note, however, that these auction prices have been too low for the company, in our view, favour the larger, mainly domestic players, and, given our current power price outlook for Poland, the merchant business model looks much more attractive, as the company has the means to finance such projects and focuses on smaller projects, with reasonable returns, opposed to the larger utilities. Poland is a specific and highly competitive market, where the state-controlled utilities have the advantage over smaller players and the state has intervened in the support scheme several times before, but the company's pipeline of merchant 225MW (all in the early stages of development) looks promising, based on our view of Polish long-term power prices.

In Hungary, Photon has achieved great success in its project development over the past several years. Since 2018, Photon has added more than 50MW, relying on support schemes. Today, most of the capacity is operating on merchant pricing, with the option, for most of the capacity, to return to the schemes. The country is still less than halfway through its 2030E PV target of more than 6GW and, therefore, Photon has more space to grow there, given that it has experience with the market already. The current pipeline stands at 25.8MW, with 2.7MW to be connected this year and the rest next year, on our numbers.

In Australia, the conditions for solar plants are extremely favourable, reaching double utilisation vs. Photon's CEE markets, and the vast space also favours PV producers. We do not model any PV additions (current capacity of 14.6MW), but look for more upside vs. our numbers from the 300MW RayGen project. Moreover, Australia's government will play a key role in Photon's water treatment business project.

Photon's key markets' overview

	Hungary	Poland	Romania	Australia	Czech Republic	Slovakia
Key Figures						
Current share of energy from RES	12.6%	12.2%	24.3%	n/a	16.2%	16.9%
Share of energy from RES in 2030E (target)	20.0%	23.0%	30.7%	n/a	22.0%	19.2%
2021YE solar PV capacity (MW)	2,131	6,257	1,398	19,074	2,119	535
Solar capacity as a % of RES capacity	69.4%	32.2%	12.4%	49.4%	47.7%	24.4%
Global horizontal irradiation (kWh/m ²)	3.31-3.64	2.8-3.13	3.01-3.89	3.77-6.37	2.86-3.28	2.76-3.49
Support Schemes (for new projects)						
RES auction scheme	✓	✓	X	X	X	✓
Investment subsidies	X	X	✓	X	✓	X
Green certificates	X	X	X	✓	X	X

Source: IRENA, Solar Power Europe, WOOD Research

Company's guidance: ambitious financial and operational goals, but achievable, in our view

In May 2022, Photon reiterated its FY22E guidance and its 2024E targets. This year, the company sees its FY EBITDA at EUR 18m on revenues of EUR 65m, or growing 88% and 79%, respectively. Based on our numbers, the guidance is achievable, with our 2022E EBITDA of EUR 19.5m and revenues of EUR 64m. The company's 2024E targets are even more ambitious, but achievable, in our view; however, they depend highly on the timely rollout of the capacity additions and future power price levels. By end-2024E, Photon targets 600MW of proprietary solar portfolio, up from today's 92MW, and an O&M portfolio of 1GW, up from around 280MW today, where most of the growth is expected to come from the proprietary plants, and around 200MW of new external capacity. Coupled with the growing Engineering and Technology segments, Photon estimates that its EBITDA will increase fivefold by 2024E (vs. 2020), with potential EBITDA upside coming from the water business. On top of this, Photon targets around 1.5GW of additional projects in the pipeline by 2024E. Despite the heavy capex planned, the equity ratio should remain above 25%, in line with the current bond covenants, a ratio we stick to across our forecast period.

Regarding the 2024E EBITDA target, increasing 5x vs. 2020, we are slightly below the target (4.85x), despite not including the 300MW RayGen project (first 50MW batch planned in 2024E) in our model. This is due most likely to our higher realised selling price estimates, as we do not assume the Hungarian plants return to the regulatory schemes by that time and we assume power price levels only slightly below the current forward trading. Given the ongoing risks stemming from Russia and its uncertain gas supplies, we believe that we are conservative in our power price forecasts and there could still be more upside to our estimates, rather than downside, caused by a potential recession this year already.

The Electricity Generation pipeline stands at 777MW at the moment (details below), with 123MW of projects in advanced development, mainly in Romania. The company's plans are bullish, but achievable, in our view, although we expect only 2.7MW of new additions in Hungary and 35MW in Romania this

year, connected in the second part of the year mostly. In May 2022, Photon added 1.4MW of merchant generation capacity in Hungary. Coupled with the full effects of the Australia and Hungary additions, opting out of the regulatory schemes in Hungary and all of the new projects selling at merchant prices, which are more than double the regulated average price currently, in respective countries, the 2022E EBITDA target is achievable, in our view. We target EUR 25m (+47% yoy) this year and model a 23% EBITDA CAGR in 2022-24E. Next year, we expect the Polish portfolio to unfold, as well as ongoing strong additions in Romania and new projects in Hungary. In Slovakia and the Czech Republic, Photon is planning no own capacity additions, but believes that its other segments should benefit from the expected growth there.

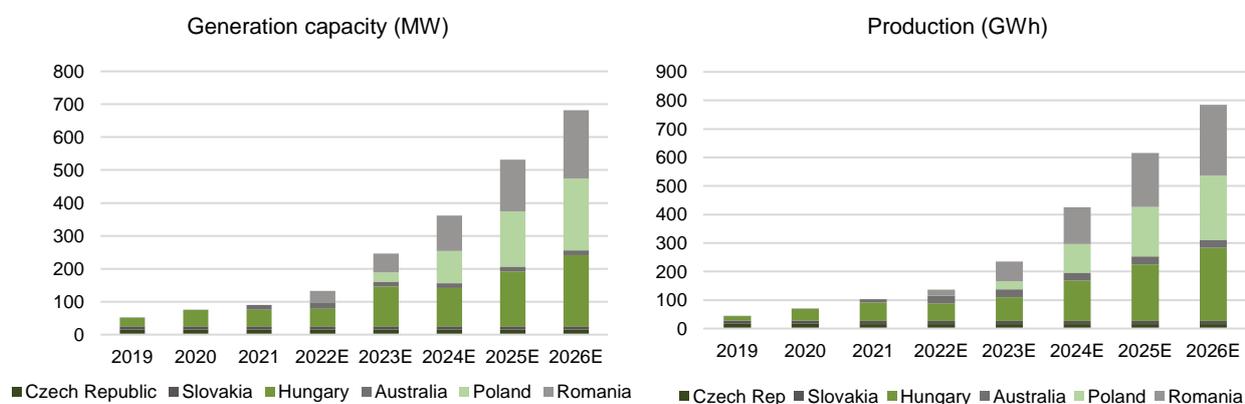
By end-2024E, we remain cautious and forecast a total of 362MW, not including any additions in Australia, where Photon is working currently on a 300MW RayGen project, with the first 50MW batch to be connected in 2024E. We do not include this project in our model, as we do not know its capex, nor its potential returns, and as Photon is very likely looking for an equity partner, given the large size of the project. As Photon owns the project rights, we believe there is only upside for our current valuation. By 2025-26E, however, we assume the company's 600MW target will be met. We have decided to remain cautious, due to the ongoing supply chain disruptions, the Polish portfolio developing more slowly, and potential regulatory hit/state intervention, which could slow its expansion.

Photon: development pipeline (April 2022)

Country	1. Feasibility*	2. Early development	3. Advanced development	4. Ready-to-build technical	5. Under construction	Total in MWp
Australia	-	300.0	-	-	-	300.0
Hungary	-	23.1	2.7	-	-	25.8
Romania	29.5	75.8	115.0	5.7	-	226.0
Poland	192.4	32.4	-	-	-	224.8
Total in MWp	221.9	431.3	117.7	5.7		776.6

Source: Company data, WOOD Research

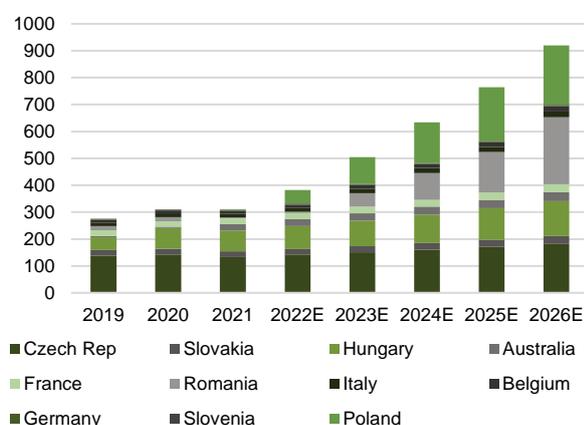
Photon: generation capacity and production volumes, led by growth in Romania, Poland and Hungary



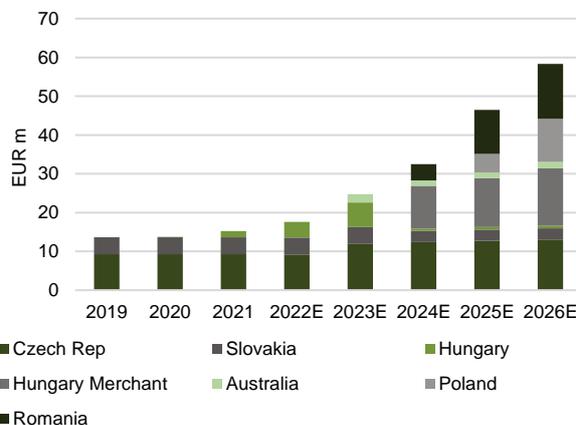
Source: Company report, WOOD Research

In the **O&M segment**, we expect growth to be driven by the company's proprietary additions mainly, which are serviced by the O&M segment, but its target of new 200MW external clients is achievable, in our view, as Photon has a strong presence in the region already. Last year, the segment's EBITDA broke even and, with the growing capacity under management, we expect the segment's profitability to pick up. By 2024E, we model a 20% EBITDA margin for the segment (vs. the 2021 margin of 6%), driven mainly by economies of scale. We note that the 300MW RayGen project is not included in our model and offers more upside to the O&M segment EBITDA. We forecast a 72% 2022-24E EBITDA CAGR for the segment.

O&M business forecast (MW)



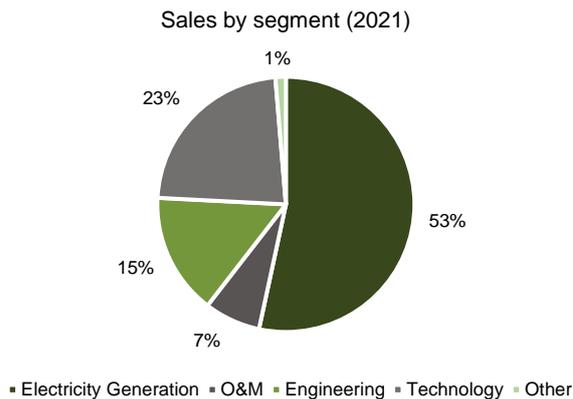
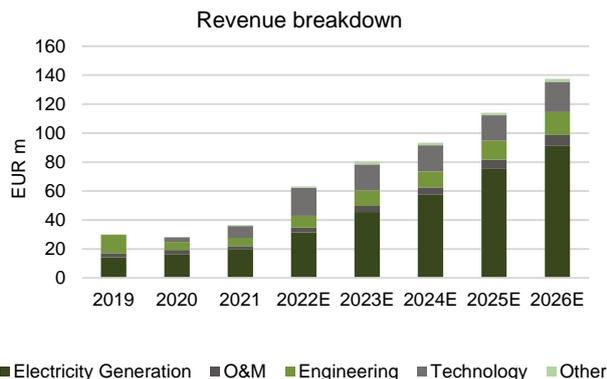
Photon: revenues by country



Source: Company report, WOOD Research

The **Engineering and Technology** segments' margins have been volatile in past years, highly exposed to seasonality and the company's investment segment's developments, but the earnings trajectory promises hefty returns ahead, on our estimates, with more demand expected from external clients. The Engineering business should grow in line with the company's proprietary plant expansion, in our view, as well as the strong growth of the industry. Considering the 4Q21 and 1Q22 growth in the Technology revenues growth, driven by high power prices and the customers' increasing demand for its own power generation to satisfy its energy needs, we believe that Photon can leverage on its expertise and market position, driving its EBITDA much higher in the coming years. For Engineering, we see an EBITDA 2022-24E CAGR of 20%, at a 13% EBITDA margin in the long term; and, for the Technology segment, a CAGR of 25%, at a 7% margin in the long term.

Generation revenue remains the main earnings driver, but other segments should record strong growth as well

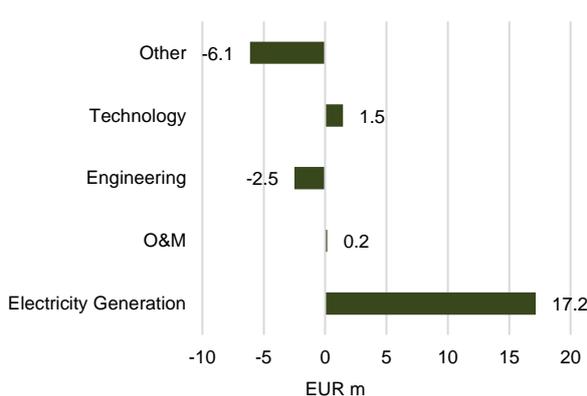
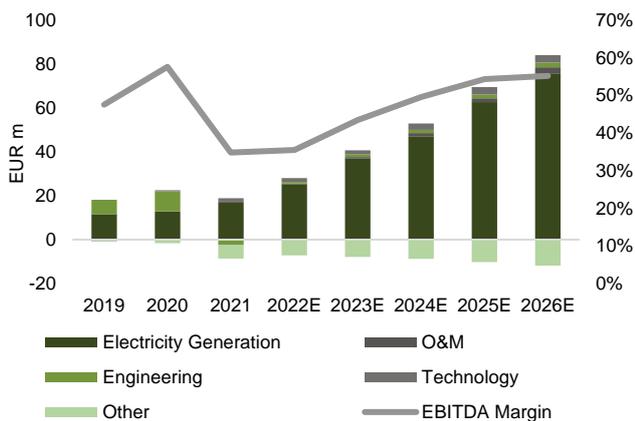


Source: Company report, WOOD Research

All-in-all, we model all segments to generate very strong EBITDA growth within our forecast period. Most of the EBITDA growth will come from the Electricity Generation segment, driven by new capacity additions, and power prices well above both the merchant and regulated price levels recorded in past years, on our estimates. However, we expect the O&M, Engineering and Technology segments to generate increasing earnings year-by-year and to improve their profitability, thanks to the proprietary growth and external demand for their services, and economies of scale. On our numbers, we estimate that an EBITDA margin close to 50% is achievable, once the company’s strategic targets have been met, up from last year’s 35%.

EBITDA and EBITDA margin forecasts

2021 EBITDA breakdown

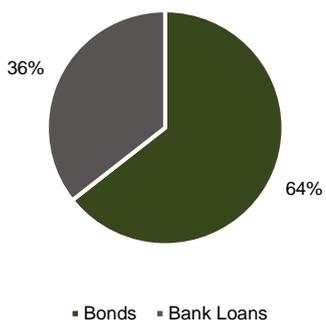


Source: Company report, WOOD Research

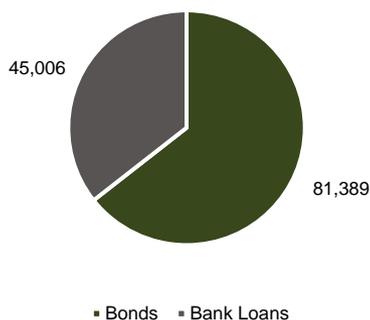
Photon’s expansion plans are bullish, and they will require a great deal of financing, most of which will come from debt. We assume negative cash flows in our model period, as the company attempts to grab market share in the highly-competitive generation segment; however, given the 25% capitalisation target, and the possibility of Photon financing new projects through PPAs and strong EBITDA growth, we are confident in our conservative capacity additions forecasts and look for more positive surprises delivered by the company vs. our numbers. As of 1Q22, Photon had a cash position of EUR 20m, we expect the company to keep selling projects in development, to support its bottom line and cash streams, as it has done in the past, and there are still 6.2% of treasury shares left for larger project financing. We believe that Photon is in a comfortable position currently to execute its bullish pipeline, and does not require new equity (last raising in 2021). With the recent spike in interest costs and our higher long-term inflation forecasts for the CEE countries, Photon might face a higher cost of financing in the future vs. its last 6.5% bond, in our view. Having said that, we believe the strong EBITDA growth, supported by high power prices, which more than offsets the inflation that Photon is facing and the borrowing costs spike, and with the strong ESG profile, we believe new financing is likely to be secured at favourable returns for the new projects. In our WACC, we use an 8% (or 6.4% net tax) cost of debt, which is more than conservative, in our view.

Debt breakdown

1Q22 financial liabilities breakdown



1Q22 financial liabilities breakdown in EUR 000s

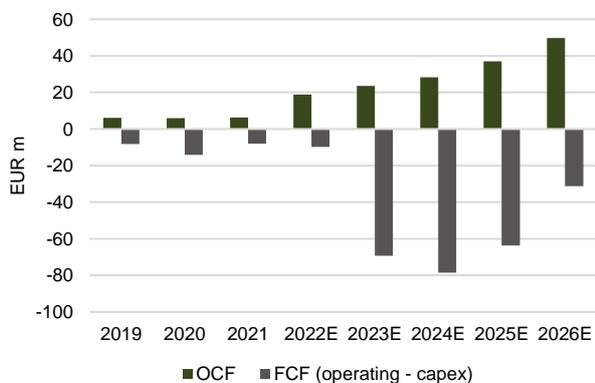


Source: Company report, WOOD Research

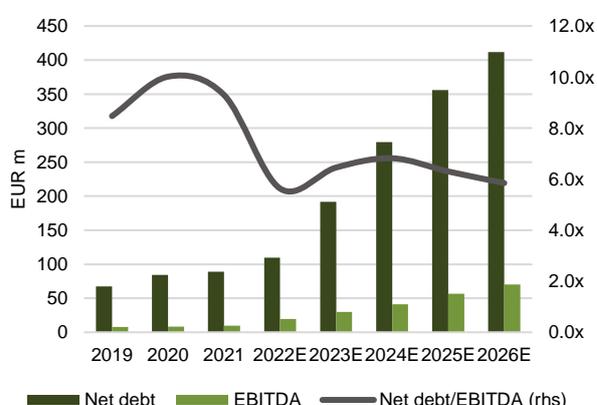
We model most of the company’s capex to be spent on the new capacity additions in the Electricity Generation segment, with the other segments facing limited spending, leveraging on their current strong position and knowhow. We forecast this year’s capex/MW for new additions at EUR 670k/MWh and then we inflate the capex/MW by our EU inflation forecasts. We believe this is a conservative approach, despite Photon’s choice to employ more expensive and higher quality rotation technologies, which, despite higher capex/MW, also generate higher earnings, with more power generated during the peak hours in the morning, when power is more expensive.

We note that our net debt/EBITDA forecast of around 6x until 2026E reflects lower investments needs vs. the company’s targets, given our more conservative pipeline rollout estimates vs. Photon’s guidance. There is, however, room for quicker capacity additions and higher leverage, based on our estimates and in line with the company’s guidance. We note that this is not a dividend story, with the company focusing on growth instead, to capture share in a quickly changing market.

Operating and free cash flow



Leverage and EBITDA



Source: Company report, WOOD Research

Peer valuation

Photon is the first pure solar (and water treatment company) under our coverage. Looking at the CEE region, there are no well-covered solar companies with publicly available forecasts by the sell-side. Therefore, we have chosen a mix of western European and US companies, which have similar business models, sizes and growth profiles. However, the basket is not perfect, we admit. While the peer 2022-24E EV/EBITDAs, on the Bloomberg consensus, produce a similar PT to our DCF, we have decided to put only a 30% weight on the peer valuation, as Photon's business model is specific and exposed to a different region. Regarding the other multiples, e.g., P/E and P/CF, we believe it is premature to use these, given the volatility of earnings of both Photon and its peers.

We note that we expect Photon's EBITDA margin to gradually grow, thanks mostly to the higher weight of power generation, but we also expect other segments' profitability to improve over our forecast period. However, being an integrated solar utility, with segments such as technology trading or engineering, it still produces lower margins than most of the peers below, which are more invested in high-margin power generation. Despite these lower margins vs. its peers, we believe that this is where the added value is at Photon – a business model that can grow in any solar downstream direction globally, while not overpaying for generation capacity expansion.

On our numbers, Photon is trading at 2022-24E EV/EBITDAs of 10.1-12.4x, at an 18% discount vs. the peer average. Despite the low liquidity, we believe these multiples are attractive. Our peer valuation yields 50% upside, or CZK 81/share.

Peer valuation: EV/EBITDA

EUR 000s	2022E	2023E	2024E
Peer multiple (x)	16.4	13.4	12.6
EBITDA	19,488	29,694	40,965
Net debt	127,269	247,563	299,628
Equity value	191,902	151,585	217,003
Average	171,743		
CZK/sh	81		
<i>Upside</i>	50%		

Source: Bloomberg, WOOD Research

Valuation multiples of selected peers

Company	MCAP (EUR m)	AVTD 3M (EUR m)	EV/EBITDA			EBITDA growth			EBITDA margin			
			2022E	2023E	2024E	2022E	2023E	2024E	2022E	2023E	2024E	
ABO Wind	EUR	500	0.2	16.2	12.3	10.6	4%	29%	13%	18%	20%	20%
Azure Power Global	USD	780	3.1	9.1	8.3	n.a.	34%	14%	n.a.	82%	85%	n.a.
Encavis	EUR	3,262	0.1	17.5	16.4	15.2	0%	7%	8%	74%	76%	76%
Greenergy Renovables	EUR	1,094	1.8	22.7	15.8	14.6	74%	70%	28%	37%	45%	47%
Neoen	EUR	4,271	7.0	19.4	17.2	16.9	24%	20%	16%	85%	84%	81%
Scatec	NOK	1,431	8.1	12.3	10.6	8.3	-9%	33%	42%	73%	76%	78%
Solaria Energia	EUR	2,848	19.3	24.2	17.7	14.8	64%	46%	26%	84%	84%	84%
Voltaia	EUR	2,089	1.3	16.1	13.2	11.6	34%	31%	18%	44%	49%	59%
7C SolarParken	EUR	341	0.5	9.9	9.4	8.9	14%	-7%	-2%	83%	83%	82%
Average		1,846	4.6	16.4	13.4	12.6	27%	27%	19%	64%	67%	66%
Photon		132	0.04	12.4	12.2	10.1	35%	42%	48%	31%	37%	44%
<i>Discount peers, delta</i>				-24%	-9%	-20%	8%	15%	29%	-34%	-30%	-22%

Source: Bloomberg, WOOD Research

Risks

Power prices. Our model is based on Photon selling a large portion of its generated power through merchant pricing, opting out of the regulatory schemes where it can, until the market power price drops below the regulated one, after which the plants would return to regulated earnings, if not before. We believe that our future power price estimates are conservative enough, but we stress that there is both upside and downside to our estimates, depending on the future developments on both the European and Australian power markets. With most of the EBITDA coming from Electricity Generation (90%, after adjusting for Other EBITDA, which includes the company-level costs), the risks are clearly skewed towards the generation segment, rather than the stable, service-like earnings of the other segments. Over time, when power prices fall and the other segments grow with the market, including the water treatment business, the power price risk will fall.

Regulatory risks. As with any other utility, the majority of Photon's EBITDA comes from power generation, which is facing an increasing risk of government intervention in all of the countries in which it operates, given the ongoing elevated power prices. This year, Photon is already running most of its PV capacity at merchant pricing and we have already seen changes in the remuneration schemes in the Czech Republic and Slovakia over the past year. Having said that, any form of price caps, additional changes in remuneration schemes or other measures could result in downside for our current estimates and valuation.

Execution risk. The company plans to reach 600MW of generation capacity by 2024E, which would mean that its production capacity would grow almost sevenfold vs. its current capacity. The current pipeline looks busy and the targets are achievable, in our view. However, either due to delays on the company's end or caused by third parties, this target may not be reached, which we reflect in our model.

Supply chain issues/inflating costs. While the LCOE of the PVs has dropped around 90% over the past two decades and the recent price spike stands at roughly 10-20% for a MW of PV capacity, the supply chain disruptions and the unprecedented demand for new solar capacity, coupled with inflation, could increase the company's capex/MW further, or delay the pipeline, due to missing parts.

Disclosure and modelling. For a small cap, considering our coverage universe, Photon has detailed disclosure, we see the company and its majority shareholders as transparent, and Photon is doing, in our view, what it can do reach out to the market, through a well-prepared IR team and improving segmental disclosure. That said, we still find it quite difficult to model the Engineering and Technology arms of the business and their future value add for the Electricity Generation profitability, as well as their own long-term revenue growth and margins. Separately, the water business and its potential upside are not fully reflected in our numbers, nor the giant 300MW RayGen project and the rights to it. Therefore, we may adjust our numbers in future, in line with the upcoming developments, observing the market trends, the company's performance and more detailed guidance on each of the projects mentioned above. We believe we are conservative in our assumptions, and we see the risks as more skewed to the upside, rather than the downside.

Main shareholders. Mr. Hotar and Mr. Gartner own more than 70% of the company's shares. We are not aware of them planning to dispose of their stakes, and we are pleased with the corporate governance at Photon, but we note that the business is highly dependent on their leadership, from the CEE capacity growth to new developments in Australia.

Competition. Photon operates in a very competitive space. It is a well-established player in each of the solar segments, and competes with both large, international players on larger-scale projects, as well as many more smaller players, focusing on smaller projects. Similarly, in the Engineering, Technology and O&M segments, the market is extremely competitive, and the company has yet to show the market that it can succeed in new markets, such as Poland and Romania.

Liquidity of shares. Photon is traded in Prague, Warsaw and Frankfurt. Being a small cap, the combined 3M daily liquidity stands at EUR 0.8m, with the Prague exchange being the most liquid, at EUR 40k, closely followed by Warsaw.

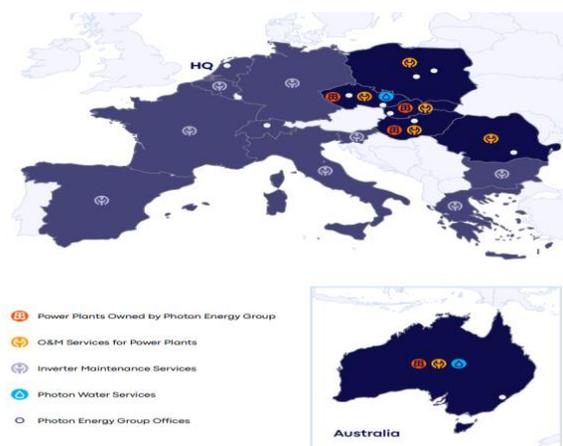
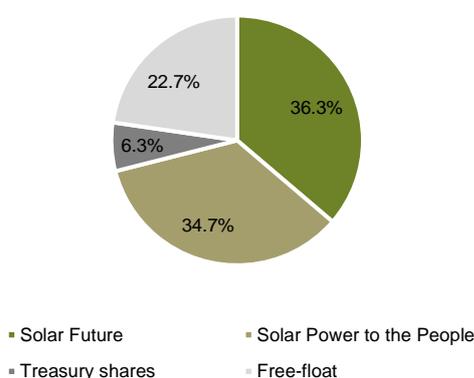
Company overview

Photon Energy Group, founded in 2008 and based in the Netherlands, is vertically integrated in the downstream segment of the photovoltaic industry. Its business model covers the whole life cycle of a power plant, from development through to engineering and construction, to electricity generation and O&M services. Currently, Photon operates 92MW of its own PV capacity, in CEE and Australia, and provides O&M services to more than 280MW of solar plants, mainly in Europe, including its proprietary portfolio. The company serves external clients through its Engineering (EPC), O&M and Technology segments, which also support its Electricity Generation segment. Photon is also active in the water treatment business, awaiting the results of its R&D currently, and holds equity stakes in two promising companies: 1) Australian battery storage/solar baseload developer RayGen; and 2) a Polish energy-tech company, Lerta.

The shareholder structure is composed of two main players, namely, Solar Future (Michael Gartner, CTO) and Solar Power to the People (Georg Hotar, CEO) with 36.3% and 34.7% shares, respectively. There is roughly a 23% free float and 6.2% are treasury shares.

Shareholder structure

Countries of operations



Source: Company report, WOOD Research

Water Solutions

Photon Water is a separate business line, accounting for up to 1.3% of the group's revenues in 2021. The main focus of its services includes: Water Treatment (industrial water treatment, waste water treatment); Remediation (elimination of contaminants in water); Wells and Resources (maintenance and servicing of wells); and Water Resource Management (managing water resources, such as lakes and ponds).

The company has developed a new technology, which provides the cleaning solution for polyfluoroalkyl substances (PFAS) contamination. The PFAS particles can be found in apparel, home furnishings, paints, and other products. Direct exposure to PFAS has been linked to kidney and testicular cancer, liver damage, and other severe health effects. Photon Water has developed a technology that treats the contamination without the need to dry the underground water or the soil. Although the project is at an early stage, the company sees very significant potential in it. Currently, Photon is cooperating with the Department of Defence in Australia and starting the pilot testing of the project. We do not include any revenues from this potential revenue stream yet, but we note that there is public awareness of this issue and the needs to treat both soil and water are increasing worldwide, with the US and Australia, and Denmark in the EU, being the main leaders. We believe that it is only a matter of time before demand for Photon's technology arises in its core markets, if not globally.

Equity investments

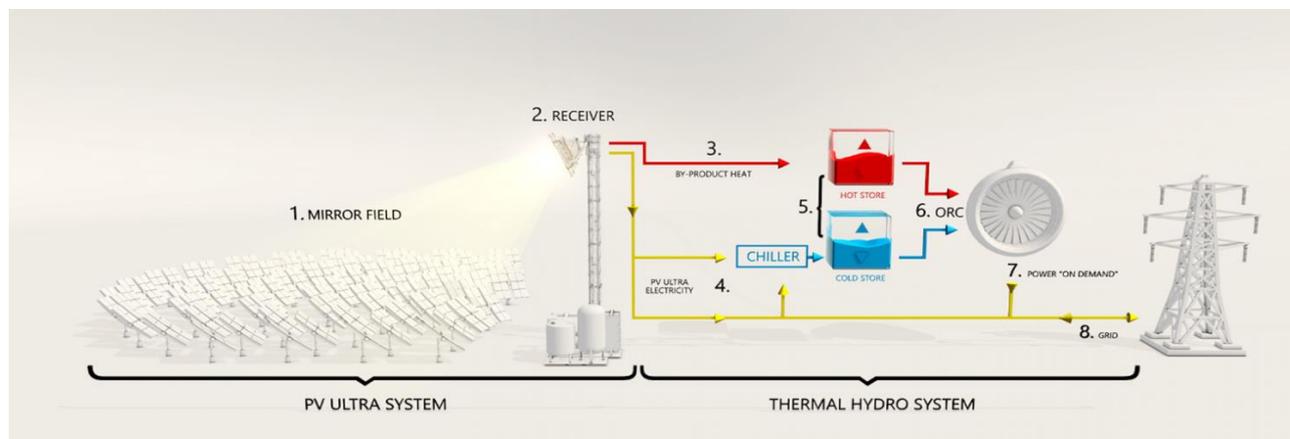
RayGen

Photon Energy Group made an equity investment of AUD 5m, and holds a 9% stake in RayGen. The first announcement of this strategic partnership was made in April 2020. The company invested alongside other significant players (such as AGL, Schlumberger New Energy and Chevron Technology Ventures, as well as the Australian Renewable Energy Agency) on the market, who invested in the company through private funding.

Raygen is an Australian technology company, with world-leading capability in the next generation of solar power and electricity storage. RayGen's solutions use proprietary PV Ultra technology, which

generates electricity and heat from sunlight focused onto a tower-mounted photovoltaic receiver. Each receiver generates a total of 1MW and 3MW heat. The company came up with the solution to store renewable energy in thermal hydro storage. The storage is attached to heat-to-power turbines, which enables using the energy as power “for demand” – meaning that solar generation could switch to baseload power at any time. RayGen has an experienced team of 35 members in Melbourne and Bendigo.

RayGen storage technology



Source: Company report, WOOD Research

Compared to conventional PV technologies, PV Ultra technology has several advantages:

- ✓ PV Ultra technology is over 4000x more energetically powerful (750kW per square metre vs. 0.18kW per square metre) than typical solar panels.
- ✓ PV Ultra receiver has double the solar system efficiency (32% vs. 15-17% system efficiency).
- ✓ RayGen’s Thermal Hydro storage stores energy longer compared to traditional battery storage.
- ✓ Using water instead of batteries in the storage does not require raw materials, such as cobalt or lithium. This means lower costs, by more than 50%.
- ✓ PV Ultra Receiver is more efficient because it generates both electricity and heat. The overall round trip efficiency is more than 70% compared to other ETES systems, which achieve approximately 50% round trip efficiency.

In 3Q22E, RayGen should complete the RayGen Power Plant Carwarf project, which should add 4MW of solar capacity. This project will be the first utility-scale facility based on this technology, and is expected to save 10,000 tonnes of CO2 emissions per year. A smaller scale plant has been in operation in Newbridge since 2015. The capacity of the plant in Newbridge is 7.5kW. Photon is working on another 300MW RayGen-connected project currently.

Lerta

Photon Energy Group has also acquired an equity stake in Lerta, investing PLN 8.75m, and has a stake of 24% currently. Lerta is a Polish energy-tech company developing a Virtual Power Plant. It develops modern energy services, helping consumers and producers of energy to effectively manage production and consumption. Lerta owns proprietary technology, including a software platform with optimisation, balancing and forecasting methods. This is based on the automation of supply and demand control. The resulting data can additionally monetise the possibility of adapting the operations of the assets to the market’s requirements in real time. The company provides its services to industrial energy consumers, as well as to independent power producers as an energy trader.

Photon’s strategy

The strategy includes the expansion of revenue streams, while increasing the value of the company. Photon presents its individual strategic goals for its business segments:

- ✓ **Electricity Generation:** expansion of the proprietary portfolio of utility-scale PV and RayGen PV Ultra Power plants from 92MW today to a total installed capacity of 600MW by 2024E. By 2024E, the company intends to control a solar energy project pipeline, in various stages of development, including additional capacity of 1.5GWp, to drive further growth beyond 2024E.
- ✓ **Engineering:** growth in engineering, procurement, and construction (EPC) activities by leveraging existing experience and knowledge, in combination with cutting-edge energy storage

technologies. Expanding the group's PPA business and the construction of PV projects.

- ✓ **Operations & Maintenance:** the maximisation of the energy generation output of both the proprietary and third-party power plants, and to optimise the useful life of the assets. In 2024E, the group expects to reach 1.0GWp, up from around 280MWp of total capacity currently.
- ✓ **Technology Distribution:** to utilise solar energy, while benefiting from economies of scale through a business-to-business online sales platform, to generate additional trading revenues from PV modules, inverters and batteries.
- ✓ **Water Solutions:** to become a leading global player in the PFAS remediation industry in its nanoremediation technology, as well as other technologies under development currently.

Management



Georg Hotar (CEO and Co-founder): Georg co-founded Photon Energy in 2008 and was the company's CFO until 2011. He has extensive knowledge of the solar energy industry, as well as in international finance. Before Photon Energy, Georg held several positions in financial services in London, Zurich and Prague, and established a strategy advisory boutique, focused on the CEE region.



Michael Gartner (CTO and Co-founder): Michael developed one of the first large PV installations in the Czech Republic, before co-founding Photon Energy in 2008. Michael was CEO of Photon Energy until the expansion of the company's business to Australia. He is instrumental in driving Photon Energy's off-grid and solar-hybrid power solutions. Before joining Photon Energy, Michael was an analyst and head of fixed income sales at ING and Commerzbank Securities in Prague.



Clemens Wohlmuth (CFO): Clemens is responsible for the financial activities and the strategies of the group. He joined Photon Energy in 2012. He has experience in financial management, having run his own consulting practice, focused on financial services and interim management. Prior to this, he was CFO and later CEO at Telekom Austria's subsidiary, Czech On Line. From 1994 until 2000, he was Senior Manager for EY Consulting in Austria and worked on several reorganisation projects in Central Europe.

ESG rating

In our power generation utilities coverage, Photon stands out as one of the ESG winners, being exposed to green electricity generation only. In 2021, there was strong demand for the company's latest green bond (EUR 55m, 6.5% coupon, due in 2027) and, when it refinances or looks for more funds on the bond market, we believe similar interest will be recorded and Photon's ESG rating will push down its borrowing costs. The ESG equity funds have not yet discovered the company, in our view. This might be due to its small size or limited liquidity, in our view. We are not aware of a similar publicly-listed solar player in the CEE region with such a strong ESG profile and we believe that, with its valuation growing over time, Photon should attract more interest.

In 2021, the company was awarded a rating of "very good" – the second-highest rating possible – with a score of 75/100, issued by imug | rating, according to the following scale: weak, moderate, good, very good, excellent. One of Photon's objectives is to pursue the highest standards of providing the shareholders with confidence in a sustainable business model. imug | rating is an independent sustainability rating agency that has been active in the fields of sustainable finance and socially responsible investment for over 20 years. It is one of the leading rating agencies in Germany and a specialist in customised ESG research.

Environment

- ✓ All of the company's field operations are strictly under the regulation of the local regulatory environmental body.
- ✓ All recyclable materials, such as plastics, wood, metal and paper, are sorted and recycled, when disposing of waste.
- ✓ No usage of chemical fertilisers or pesticides for landscape management.
- ✓ To clean the PV panels, the company uses non-chemical demineralised water.
- ✓ When preparing new land to construct power plants, the company conducts in-depth biodiversity studies and implement measures to minimise the risk of unavoidable impact.

Social

- ✓ The company has implemented strict health and safety policies, and employees are responsible for complying with all applicable laws and regulations. As a result, no serious accidents happened in 2021.
- ✓ The company provides equal work opportunities, without regard to gender, race, religion, disability, sexual orientation or age.
- ✓ The company provides an open, non-retaliatory work environment, without discrimination (which is not tolerated).
- ✓ The company ensures that all of employees are treated objectively and equally in terms of remuneration, based on fair criteria.
- ✓ To protect the privacy of its suppliers, the company has implemented strict policies and procedures to ensure that sensitive data are protected, including the electronic data in its systems.
- ✓ The company prioritises local suppliers, to support the local economy through job creation.

Governance

- ✓ The company has an independent supervisory board and audit committee to provide independent guidance and oversight to the management board on the general affairs of the company.
- ✓ As Photon Energy is a listed company, it applies the Dutch Corporate Governance Code and the Warsaw Stock Exchange Best Practices.
- ✓ All employees, suppliers and customers act in an ethical manner, and stakeholders are not subject to corruption, bribery or extortion.
- ✓ The company has implemented an anti-corruption policy and insider trading policy; both are signed by all employees, together with their contracts.
- ✓ The company uses a misconduct reporting channel, which is available to all of its employees, suppliers and shareholders. It is operated by a third party, and the channel allows users to remain anonymous.

- ✓ Photon conducts internal ESG surveys to ensure that all employees are directly involved in the development of the company's practices.
- ✓ Preparation of anti-bribery and anti-corruption training.

ESG: key performance indicators

Environmental data	2020	2021
Percentage of revenues connected to activities that create sustainable value	100%	100%
Clean energy generated by the proprietary portfolio of PV power plants	70.0 GWh	103.3 GWh
CO2e savings	29.799 tonnes	43.867 tonnes (+47.8%)
Social data		
Number of full-time staff/number of employees	133/136 (98%)	141/144 (98%)
Percentage of female employees	33%	37%
Nationalities	21	18
Number of employees who completed training courses	50/136 (37%)	64/144 (44%)
Lost time injuries	0	0
Governance data		
Contributions to political parties as percentage of total revenues	0%	0%
Claims against the company ruled by a court as a percentage of total revenues	0%	0%
Responsible procurement, subjected to due diligence	na	95 % of our technology purchases

Source: Photon Energy Group, WOOD Research

Financials

P&L

EUR m	2019	2020	2021	2022E	2023E	2024E
Revenue	30.2	28.3	36.4	63.2	80.3	93.4
Other income	0.2	0.4	0.4	0.4	0.4	0.4
Raw materials and consumable used	-9.8	-4.6	-12.7	-17.5	-31.1	-57.9
Solar levy	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9
personnel expenses	-4.6	-5.8	-6.7	-7.2	-7.4	-7.6
Other expenses	-7.1	-8.9	-6.8	-18.6	-11.7	13.5
EBITDA	7.9	8.4	9.6	19.5	29.7	41.0
Depreciation	-6.8	-8.3	-10.7	-11.4	-15.7	-20.8
Impairments	-0.1	-0.4	-0.2	0.0	0.0	0.0
Gain (loss) on disposal of investments	4.3	0.0	0.5	0.0	0.0	0.0
Share of profit equity-accounted investments	0.0	0.1	0.1	0.0	0.0	0.0
EBIT	5.4	-0.1	-0.7	8.0	14.0	20.1
Financial income	0.2	0.1	0.2	0.1	0.1	0.1
Financial expenses	-4.7	-6.0	-6.8	-10.2	-17.3	-19.5
Profit before Tax	1.0	-6.5	-5.9	-2.1	-3.3	0.7
Result from discontinued operations				0.8	8.6	16.8
Income tax due/deferred	-1.7	-2.2	-0.5	1.4	0.2	-1.0
Profit/loss	-0.7	-8.7	-6.4	0.1	5.5	16.4

Source: Company data, WOOD Research

Balance sheet

EUR m	2019	2020	2021	2022E	2023E	2024E
Current assets	28.4	23.9	54.2	54.5	58.3	61.4
Cash & Equivalents	12.4	9.9	32.5	28.4	29.4	30.4
Trade receivables	10.4	6.1	9.1	11.9	13.6	15.0
Inventories	1.2	1.0	2.2	3.8	4.9	5.6
Other	4.3	6.8	10.4	10.4	10.4	10.4
Non-current assets	108.7	135.1	142.5	160.5	246.2	348.9
Tangible	102.0	126.3	127.5	145.5	231.2	333.9
Intangible	0.9	1.3	0.8	0.8	0.8	0.8
Other	5.7	7.5	14.1	14.1	14.1	14.1
Total assets	137.0	158.9	196.6	215.0	304.5	410.3
Current liabilities	12.3	15.2	34.0	26.5	28.6	30.4
ST debt	3.7	6.0	28.5	19.4	20.4	21.4
Trade payables	7.4	7.2	4.5	6.2	7.2	8.0
Other	1.2	1.9	1.0	1.0	1.0	1.0
Non-current liabilities	86.8	103.6	111.1	136.8	218.8	306.4
LT debt	76.4	90.9	98.3	124.0	293.6	293.6
Other	10.4	12.7	12.8	12.8	-74.8	12.8
Total liabilities	99.2	118.8	145.1	163.3	247.4	336.8
Minority interest	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
Shareholders' equity	37.8	40.1	51.5	51.6	57.1	73.5
Total liabilities and equity	137.0	158.9	196.6	215.0	304.5	410.3

Source: Company data, WOOD Research

Cash flow statement

EUR m	2019	2020	2021	2022E	2023E	2024E
Profit before income tax	1.0	-6.5	-5.9	-2.1	-3.3	0.7
Depreciation and amortisation	6.8	8.3	10.7	11.4	15.7	20.8
Finance costs	4.4	6.4	5.2	10.1	17.3	19.4
Other	-4.5	0.5	3.7	3.5	-4.2	-12.4
Operating cash flows before WC changes	7.7	8.6	13.7	23.0	25.4	28.6
WC changes	0.7	-2.4	-5.0	-2.7	-1.7	-1.3
Income tax paid	-0.3	0.8	-2.3	-1.4	-0.2	1.0
Other	-1.9	-1.0	-0.1	0.0	0.0	0.0
Net cash from operating activities	6.2	6.0	6.2	18.9	23.5	28.3
Capex	-19.7	-18.3	-8.6	-29.5	-101.4	-123.5
Other	5.3	-1.9	-5.6	0.8	8.6	16.8
Net cash used in investing activities	-14.4	-20.2	-14.2	-28.6	-92.8	-106.8
Net proceeds from borrowings	15.4	18.6	29.8	20.7	82.0	87.6
Other	-3.7	-6.7	-6.9	-10.2	-17.3	-19.5
Capital increase	0.0	0.2	7.8	0.0	0.0	0.0
Net cash used in financing activities	11.7	12.1	30.6	10.5	64.6	68.2

Source: Company data, WOOD Research

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Date	Rating	Date	PT
25/05/2022	BUY – initiation of coverage	25/05/2022	CZK 84

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