

Company	Price (EUR)	PT (EUR)	Rating	Potential (%)
7C Solarparken	4.53	6.20	Buy	37.0%
Clearvise	2.44	3.90	Buy	59.8%
Encavis	18.98	20.60	Hold	8.6%
Energiekontor	83.60	127.00	Buy	51.9%
PNE AG	23.80	26.20	Buy	10.1%
Tion Renewables	23.80	46.00	Buy	93.3%

Renewable Energy

Conference Feedback: Equity Forum



Key findings

Extraordinarily high power prices resulted in a cascade of positive guidance revisions in the IPP industry in 2022. Based on a supportive regulatory environment and the current energy crisis in Europe, the opportunities ahead hint at an optimistic market scenario for the entire renewables value chain in the future. Supply-chain obstacles and potential power-price caps in Europe should have a minor impact on earnings development, leaving enough space to keep margins and returns stable in 2023. Hence, we remain optimistic for the mid-term outlook of the industry and see the opportunities ahead prevailing over short-term obstacles.

The German equity forum ("Eigenkapitalforum"), which took place in Frankfurt last week, was last large conference for small and mid-caps for the year. Several renewable companies presented their cases to investors, outlined the opportunities arising from the European energy transition and talked about the latest developments regarding regulation and supply chains.

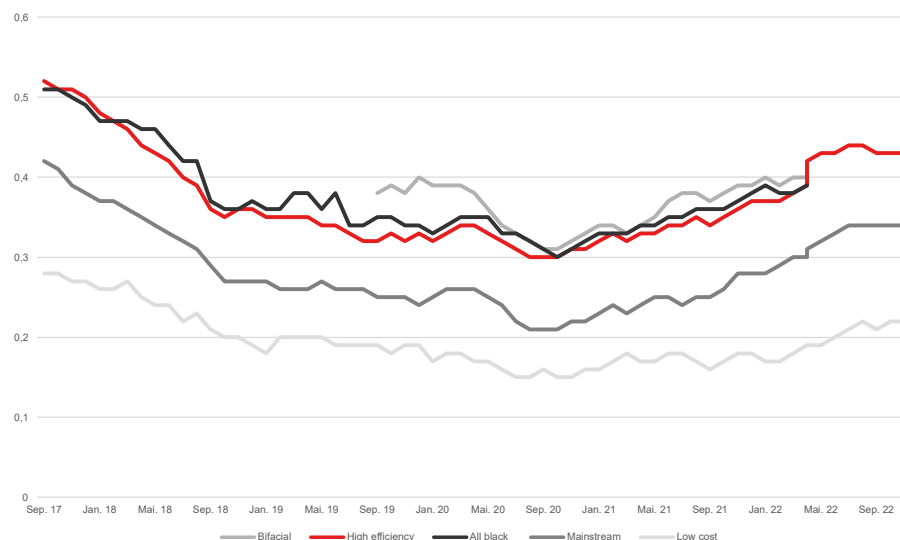
Industry-wide topics

Supply chains and availability of parts

The universal issues of surging inflation, supply-chains disruption and material shortages have also left their mark on the renewables industry, even though the steep rise in electricity prices more than compensated for higher input costs. The biggest obstacle though, has become the availability of parts which has been thwarted by Covid lockdowns in China, wafer shortages and limited distribution capacities.

- The availability of PV modules further improved in Q3, but a new, imminent Covid-lockdown in China might extend lead times once again. Module prices have increased by about 10% to 20% since January but from a very low basis and further efficiency improvements are set to level the prices per MWp in the next years.

PV module price index (pvexchange; EUR/Wp)

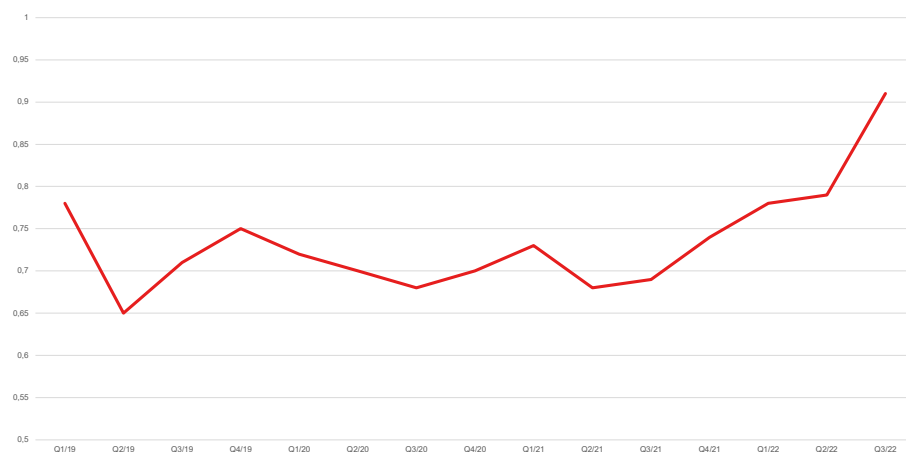


Source: pvexchange, Warburg Research

- Inverters were most affected by the pressure on chip supply, which has eased since the summer. However, some producers are still experiencing sluggish vendor allocation, which is restraining their production output in Europe.
- Still rare are transformer stations, which is accompanied by limited installation capacities of grid operators. As a result, grid connections are postponed even if the rest of the installation is complete.

- Wind-turbine manufacturers are still facing disruption in their international supply chains. It has been rumoured that Nordex intends to accept firm orders for 2023 only until the end of January, otherwise delivery cannot be guaranteed. Combined with uncertainties regarding grid access, financing, final approval and remuneration, we expect some developers to postpone turbine orders or switch to contingent orders, without knowing which project the ordered turbine will be used for.
- Prices for onshore wind turbines also increased, reflecting the surge in raw material costs. For the first time in years, the ASP at Nordex surpassed EUR 0.80m/MW in Q3/22.

Average selling price of Nordex wind turbines (mEUR/MW)



Source: Nordex, Warburg Research

- Installers, in particular for residential PV, electricians and specialized construction workers are still well booked, resulting in a certain EPC shortage. However, large developers and IPPs usually have own teams and are not fully dependent on external capacities.



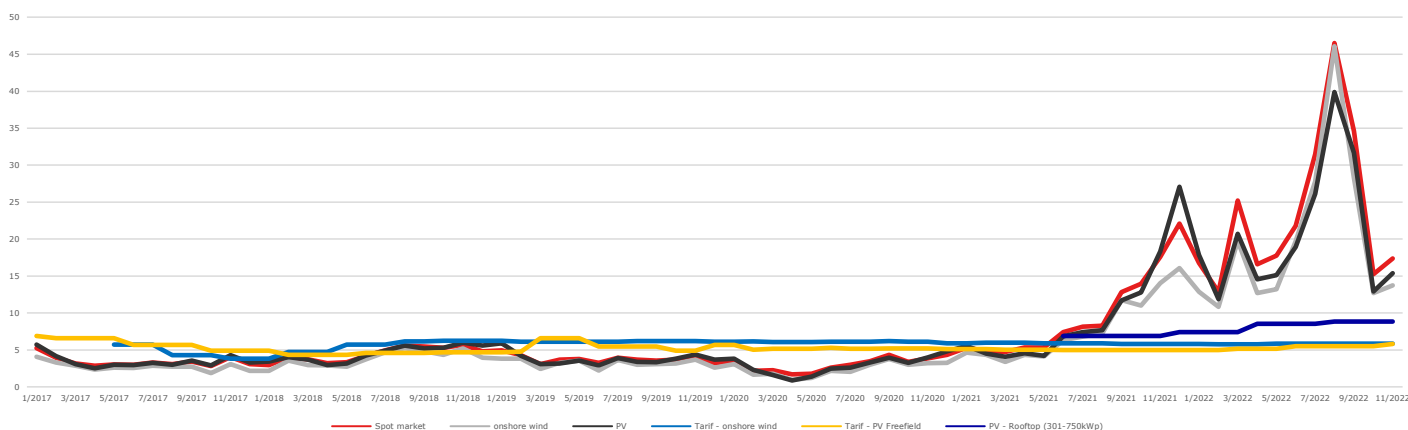
Our take

- The strained supply situation for parts and materials also has an impact on the renewable industry, resulting in longer lead-times for projects.
- Higher input costs are currently fully offset by higher power prices, which is keeping project margins and investment returns at least stable.

Power prices and regulatory intervention

In 2022, power prices in Europe reached historically high levels in the aftermath of Russia's invasion of the Ukraine. For renewable operators though, the higher price levels came along with broad revenue and margin growth as their input costs remained almost the same. For new-build assets, the favourable pricing environment compensated for the surging materials costs and higher financing costs, keeping the investment returns for renewable assets at least stable.

Development of tariffs (EEG) vs. market values for PV / onshore wind in EURct/kWh for Germany



Source: Netztransparenz; Warburg Research

However, the turmoil on energy markets also attracted the attention of regulators with a view to protecting companies and private households from escalating energy bills. Therefore, the EU laid the legal foundation for power price cap mechanisms to skim “incidental earnings” from power generators with lower marginal costs, so-called “inframarginal technologies” (including renewables and nuclear). Germany is currently in the process of implementing a price cap mechanism and the relevant legislation is expected to be passed by parliament in mid-December. Prior to the final version, several drafts of the regulatory framework were leaked and showed, from our perspective, a positive development for the renewable industry from draft to draft:

- First draft (late October): Retroactive skimming of profits as of March 2022 with a cap price of EUR 100/MWh plus technology-specific security margin
- Second draft (mid-November): Retroactive skimming as of September 2022 and a cap price of EUR 100/MWh + 30EUR/MWh security margin. Above the cap, 90% of sales shall be skimmed.
- Third draft (end of November): Implementation as of December 2022 with a specific cap price of EUR 100/MWh (or EEG tariff) + 30EUR/MWh security margin. Above the cap, 90% of sales shall be skimmed.

The detailed treatment of PPAs and hedges/futures are still unclear, in particular with regard to the calculation of the reference price. Hence, the impact on our estimates for the respective companies cannot yet be calculated in detail, but we expect it to be negligible as retroactive skimming is off the table and our FY 2023 estimates are solely based on fixed remuneration (EEG tariffs and PPAs). For our 2022 estimates, we are not expecting any downside as market values for wind and PV already came down in November and current spot market prices hint at similar pricing levels in December.

A much-discussed topic has been the future development of power prices. Given the current uncertainty on power markets, no forecasts have been made but the broad consensus of managers expects electricity prices to remain volatile on high, but not extraordinarily high, levels. As soon as gas tanks run low again in Q1-Q2/2023, the supply strategy of European governments for the heating period 2023/24 will be decisive for the power-price development as well as the extent of LNG supply and natural gas substitution.



Our take

- The latest draft from the German government no longer indicates a material retroactive power price cap mechanism.
- Hence, we expect a release of the provisions built and guidance upgrades as soon as the law has been passed by the German parliament.
- In 2023, we expect power prices to remain volatile on a high level, which should result in positive earnings revision potential for IPPs.

Company presentations

Clearvise

The main topic of the presentation was the pending portfolio transaction with Tion Renewables and the capital increase which has meanwhile been successfully executed. Further assets from the agreed pipeline with ALTUS are expected to be added to the portfolio in H1/23 (49MW) accompanied by further, small PV parks. Hence, the growth path to 1GW by 2025 is becoming increasingly visible and, if all transactions are successfully executed, clearvise's portfolio should grow beyond 500MW in 2023. Based on the latest draft of the German power-price cap, the management does not expect any material impact in FY 2022 and we expect a further guidance increase as soon as the law has been passed by the parliament.

Encavis

During the conference, Encavis announced two further portfolio additions, a 69MW windfarm in Lithuania and a 55MW PV park in Spain. The management confirmed its target to acquire about 500MW in 2022, hinting at news of further deals in the last weeks of the year. Backed by an upbeat set of figures, the guidance was confirmed with the presentation of the 9M figures even though a provision of EUR 30.3m has been made for a potential power-price cap, retroactive as of September. Referring to the latest draft of the German cap mechanism, we expect Encavis to release the provision for Germany as soon as the law has been passed by the parliament, which could trigger a guidance increase in late December or January.

Energiekontor

The German developer is well on track to reach its mid-term guidance of EUR 55-60m in EBT generation in 2023 at the latest, even though the material shortages and regulatory uncertainties are likely to postpone some projects in 2022/23. The sales processes for some projects are still pending, but the in-house portfolio and the project sales already executed should be sufficient to reach the guidance range for 2022. An important milestone has been reached with the granting of building permits for two large-scale PV projects in Germany and one further permit is expected soon. In total, Energiekontor now has 575MW of permitted projects in its pipeline, which hints at a continuation of high project activity in the next years.

PNE

The management provided a short summary of its key takeaways from PNE's capital markets day and its new targets for 2027. The opportunities for developers in the ramp-up of a green hydrogen supply chain were highlighted as well as the benefits of PNE's international project footprint. To circumvent supply shortages for parts, PNE has decided to put in early orders for cables and other parts for 2023 to be able to execute projects as soon as the RtB status has been reached. No statements were made with regard to the potential sale of MSIP's stake in PNE. The management merely confirmed that it was informed by MSIP of its intention to start talks with potential buyers.

Tion

Tion Renewables presented its first battery storage investment in the UK, including the publication of a white paper on battery storage markets and the economics of such investments. After the transition of its business model and its intention to join forces with clearvise, the first important milestone has been taken and further storage projects in Tion's pipeline can be expected in the course of 2023. Further, the Tion management presented its second future growth pillar, tailor-made investment solutions for institutional investors, which we expect to start bearing fruit in 2023.



Our take

- Renewables companies are well on track to present upbeat figures for FY 2022 and further guidance upgrades can be expected.
- Going forward, regulatory tailwinds and high power prices should result in a supportive market environment and positive earnings revisions are very likely.

Valuation overview

Company	Valuation approach	Rating	PT (EUR)	Potential %	Market cap	EV/EBITDA	P/E	P/B	P/CF	Net debt/EBITDA
7C Solarparken	Warburg IPP DCF	Buy	6,20	37,0%	345,5	7,4x	15,6x	1,7x	6,5x	2,4x
Clearvise	Warburg IPP DCF	Buy	3,90	59,8%	140,1	7,0x	13,6x	1,8x	4,5x	4,0x
Encavis	Warburg IPP DCF	Hold	20,60	8,6%	3.055,5	14,4x	38,7x	3,6x	11,9x	4,9x
Energiekontor	Warburg multiple-based developer SOTP	Buy	127,00	51,9%	1.169,3	14,8x	30,8x	10,7x	18,6x	2,0x
PNE AG	Warburg multiple-based developer SOTP	Buy	26,20	10,1%	1.815,9	60,5x	n.a.	8,1x	46,6x	13,6x
Tion Renewables	Warburg IPP DCF	Buy	46,00	93,3%	113,0	8,5x	11,1x	0,9x	33,3x	4,6x

Peer group Independent Power Producers (IPPs) (as of 08/12/2022)

Peergroup IPPs - Valuation Multiples

Company	LC	Price in LC	MC in LC m	EV in LC m	P / E			EV / Sales			EV / EBITDA			EV / EBIT			Price / CF		
					22e	23e	24e	22e	23e	24e	22e	23e	24e	22e	23e	24e	22e	23e	24e
Coverage																			
7C Solarparken AG	EUR	4.53	361.3	549.7	16.0 x	18.3 x	34.5 x	6.9 x	7.0 x	7.4 x	8.1 x	8.5 x	8.7 x	15.7 x	17.8 x	20.2 x	6.6 x	6.8 x	7.1 x
clearvise AG	EUR	2.44	182.9	329.1	14.5 x	246.0 x	n.a.	5.3 x	6.4 x	5.5 x	6.9 x	8.8 x	7.4 x	14.3 x	30.9 x	24.1 x	5.2 x	6.7 x	6.1 x
Encavis AG	EUR	18.98	3,055.5	5,076.2	32.7 x	30.6 x	28.3 x	11.9 x	11.1 x	10.6 x	15.9 x	14.8 x	14.2 x	28.1 x	26.7 x	25.4 x	13.3 x	11.9 x	11.5 x
Tion Renewables AG	EUR	23.80	113.0	241.6	15.5 x	21.6 x	19.8 x	7.0 x	7.8 x	8.1 x	10.0 x	11.0 x	10.7 x	19.6 x	34.5 x	34.5 x	6.9 x	6.2 x	5.9 x
System peers																			
Albioma	EUR	47.14	1,521.5	2,685.2	24.4 x	20.8 x	20.2 x	4.5 x	4.3 x	4.1 x	12.3 x	11.2 x	10.8 x	20.9 x	18.6 x	18.4 x	10.0 x	9.1 x	8.7 x
Anise AB	SEK	52.80	2,346.4	2,058.4	3.0 x	7.0 x	5.4 x	1.8 x	3.8 x	2.6 x	2.4 x	5.7 x	3.5 x	2.6 x	6.8 x	3.8 x	2.8 x	7.7 x	5.0 x
Cloudberry Clean Energy ASA	NOK	13.34	3,885.9	1,938.0	33.5 x	38.3 x	38.3 x	8.5 x	5.2 x	4.3 x	10.4 x	7.3 x	8.4 x	11.7 x	8.5 x	10.1 x	34.7 x	24.0 x	23.0 x
Greencoast Renewables Plc	EUR	1.16	1,318.1	1,780.4	8.5 x	11.4 x	12.9 x	8.2 x	10.1 x	12.5 x	10.3 x	13.3 x	15.0 x	10.3 x	13.3 x	15.0 x	6.9 x	9.8 x	11.4 x
Innervex Renewable Energy Inc.	CAD	16.60	3,388.6	9,225.8	215.0 x	42.4 x	57.4 x	10.2 x	9.4 x	9.4 x	12.7 x	12.2 x	12.1 x	30.1 x	23.5 x	24.9 x	8.3 x	8.0 x	7.4 x
Neoen S.A.	EUR	37.07	4,241.4	6,902.2	64.1 x	48.9 x	40.5 x	14.7 x	12.7 x	10.0 x	17.9 x	15.4 x	12.4 x	28.4 x	24.9 x	19.6 x	20.7 x	15.9 x	13.7 x
Renewables Infrastructure Group Limited	GBP	1.28	3,175.7	2,952.3	5.8 x	16.0 x	18.2 x	5.3 x	13.2 x	13.1 x	5.0 x	11.1 x	10.9 x	5.3 x	13.3 x	13.2 x	5.5 x	11.9 x	11.8 x
Soltec Power Holdings SA	EUR	4.85	441.0	571.4	69.7 x	20.3 x	13.2 x	1.1 x	0.9 x	0.8 x	31.7 x	10.9 x	7.0 x	51.9 x	13.8 x	8.9 x	38.1 x	15.1 x	8.6 x
Terna Energy S.A.	EUR	20.20	2,332.6	2,963.0	33.7 x	26.6 x	23.0 x	6.3 x	6.0 x	6.1 x	17.3 x	13.3 x	11.4 x	23.6 x	17.5 x	15.2 x	20.1 x	15.7 x	13.5 x
Voitalia SA	EUR	17.16	2,248.1	2,916.4	50.0 x	28.3 x	25.4 x	6.5 x	5.5 x	4.8 x	15.0 x	10.5 x	8.9 x	26.5 x	17.7 x	15.1 x	18.7 x	12.7 x	10.7 x
EDP Renovaveis SA	EUR	21.39	20,623.2	28,722.3	29.2 x	29.0 x	27.4 x	12.2 x	11.1 x	10.1 x	13.6 x	12.9 x	12.1 x	20.3 x	19.7 x	19.1 x	14.6 x	14.0 x	13.0 x
Enbridge Inc.	CAD	53.31	75,347.4	198,689.7	18.3 x	17.4 x	17.4 x	3.7 x	3.6 x	3.7 x	12.8 x	12.3 x	12.1 x	17.8 x	16.7 x	16.3 x	7.3 x	7.3 x	7.2 x
Corporacion Acciona Energias Renovabl	EUR	36.42	11,938.6	14,639.6	18.0 x	18.7 x	20.2 x	4.0 x	4.2 x	4.3 x	9.5 x	9.5 x	9.5 x	13.1 x	13.5 x	14.4 x	10.9 x	11.0 x	10.8 x
Holaluz Clidom SA	EUR	6.94	153.2	76.2	16.6 x	8.3 x	4.5 x	0.1 x	0.1 x	0.1 x	3.7 x	2.4 x	1.5 x	5.5 x	2.9 x	1.6 x	9.6 x	6.3 x	4.1 x
Scatec ASA	NOK	83.66	1,265.3	33,238.3	n.a.	40.1 x	20.0 x	8.6 x	7.0 x	5.3 x	12.5 x	9.4 x	7.6 x	45.0 x	15.0 x	12.0 x	1.0 x	0.6 x	0.5 x
Boralex Inc. Class A	CAD	37.55	2,693.5	7,034.7	56.0 x	33.2 x	35.8 x	9.7 x	8.7 x	8.8 x	12.6 x	11.4 x	10.9 x	35.4 x	27.3 x	25.6 x	6.1 x	5.6 x	5.4 x
Fair value per share (median)																			
7C Solarparken AG	EUR	4.53			7.56	6.57	2.65	4.26	4.12	3.40	6.99	5.89	5.63	5.84	4.44	3.41	6.54	6.47	5.57
clearvise AG	EUR	2.44			4.52	0.21	n.a.	3.15	2.68	2.67	4.40	3.08	3.54	3.47	1.38	1.54	4.54	3.57	3.47
Encavis AG	EUR	18.98			12.38	13.40	13.52	10.39	10.98	9.97	14.66	14.06	14.31	13.24	12.41	11.39	11.88	14.55	14.06
Tion Renewables AG	EUR	23.80			41.10	29.24	25.91	22.17	19.57	16.23	29.78	23.97	24.01	24.61	12.06	10.49	33.25	37.68	34.96

Source: FactSet, Warburg Research, all estimates based on consensus data

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Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
7C Solarparken	4	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A11QW68.htm
Clearvise	3, 4, 5	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A1EWXA4.htm
Encavis	3	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE0006095003.htm
Energiekontor	5	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE0005313506.htm
Tion Renewables	5	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A2YN371.htm
PNE AG	5, 7	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A0JBPG2.htm

INVESTMENT RECOMMENDATION

Investment recommendation: expected direction of the share price development of the financial instrument up to the given price target in the opinion of the analyst who covers this financial instrument.

-B-	Buy:	The price of the analysed financial instrument is expected to rise over the next 12 months.
-H-	Hold:	The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months.
-S-	Sell:	The price of the analysed financial instrument is expected to fall over the next 12 months.
“-“	Rating suspended:	The available information currently does not permit an evaluation of the company.

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING

Rating	Number of stocks	% of Universe
Buy	162	76
Hold	43	20
Sell	6	3
Rating suspended	3	1
Total	214	100

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING ...

... taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	45	83
Hold	7	13
Sell	1	2
Rating suspended	1	2
Total	54	100

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